

Rypos Inc. is a leading innovator of diesel engine emission control systems. The company provides intelligent clean air technology built on the company's patented active regeneration technology and proprietary catalysts.

THE RYPOS ADVANTAGE

- › Active filter regeneration independent of exhaust temperatures
- › Low maintenance, durable, lowest cost of ownership
- › Low back pressure maximizes engine performance
- › Total particulate matter reduction to 95% +
- › Reduces hydrocarbons, carbon monoxide, and NO₂
- › Energy efficient, less than 1% fuel penalty
- › CARB Level 3+ Verified

150 Hopping Brook Road
Holliston, MA 01746
Tel: 508.429.4552
Fax: 508.429.4553

WWW.RYPOS.COM

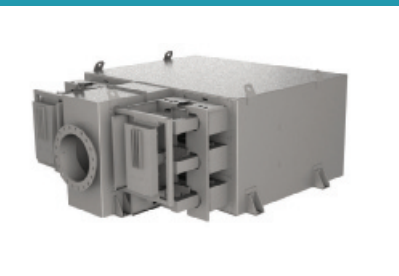
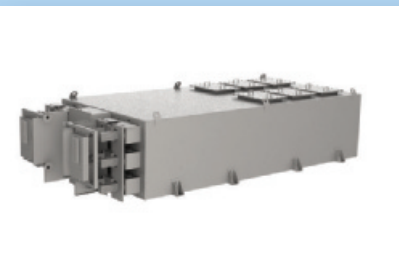


R10-14PG



EMISSION CONTROLS FOR DIESEL POWERED GENERATOR SETS

Rypos is a leading technology provider innovating the future of clean air through intelligent emissions' reduction solutions built on the company's patented electrically self-regenerating filters and proprietary catalytic technologies.



150 Hopping Brook Road
Holliston, MA 01746
Tel: 508.429.4552
Fax: 508.429.4553

WWW.RYPOS.COM

RYPOS - INNOVATING THE FUTURE OF CLEAN AIR

Rypos is a leading technology provider innovating the future of clean air through intelligent emissions' reduction solutions built on the company's patented electrically self-regenerating filters and proprietary catalytic technologies.

RYPOS' Active Regeneration Technology specifically traps diesel particulate matter (PM), a known toxic air contaminant, within a self-cleaning sintered fiber substrate. A diesel oxidation catalyst (DOC) further reduces harmful emissions through a catalytic process which converts carbon monoxide and hydrocarbon into carbon dioxide and water. Additionally, a selective catalytic reduction system (SCR) can be integrated into a Rypos Active DPF system to achieve up to 95%+ reductions in Nitrogen Oxides (NO_x).

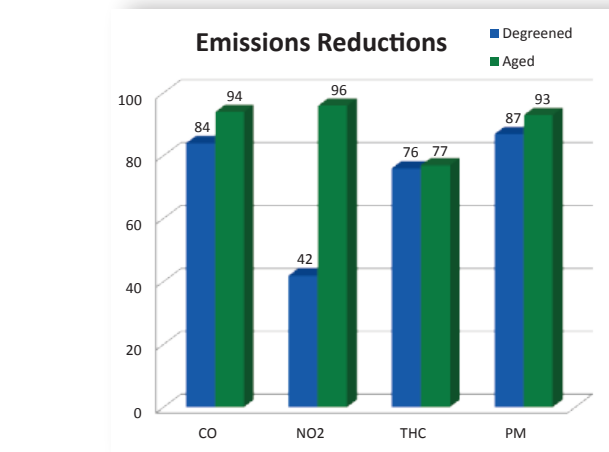
RYPOS ACTIVE REGENERATION TECHNOLOGY IS A BREED APART

Rypos' patented electrically self-regenerating Active DPF Series filters apply an electric current directly to the filter media, creating an electric heater which oxidizes any accumulated soot at 700 °C in under 3 minutes while typically using less than 1% of the generator output. If your engine is running at any load and temperature for any reasonable length of time, then the Rypos Active DPF system is capable of delivering a controlled regeneration. A Rypos Active DPF system has built in microprocessors that monitor back pressure, temperature and elapsed time between regenerations to control the regeneration cycles efficiently and safely so your stand-by power is available when you need it most.



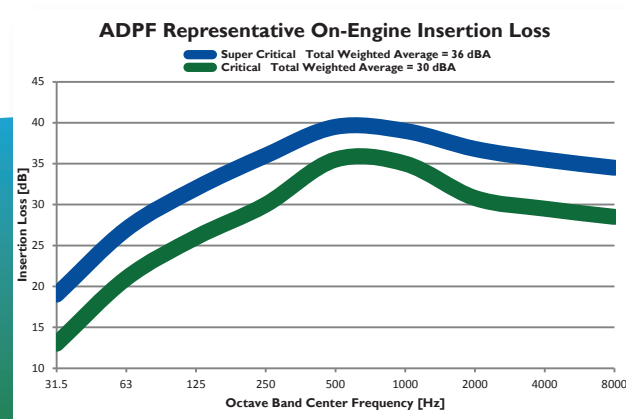
ACTIVE VS. PASSIVE REGENERATION

Active regeneration is a process whereby filter cleaning is controlled independent of exhaust temperatures, engine loads, the number of cold starts or the engine run time. While Active regeneration is much more reliable than passive regeneration, **not all active systems control regeneration in the same way.** These differences extend to the safe, reliable and efficient operation of your stand-by or prime power generators. Other less efficient active systems use electric heaters or complicated fuel dispensing and burning systems deployed in front of the DPF in an attempt to raise the temperature of the exhaust flow for an extended period



(up to 30 minutes) to achieve a "passive regeneration" in the filter media. Large amounts of energy in the form of electrical power or fuel (up to 25%) are required to achieve regeneration. Integrating the filter system with the engine fuel system adds complexity and potential safety risk. **By Contrast, the Rypos Active System** oxidizes any accumulated soot at 700 °C in under 3 minutes while typically using less than 1% of the generator output.

Passive, or uncontrolled regeneration is a term applied to filters that have limited ability to self-clean, or self - regenerate. Under narrow conditions, of elevated exhaust temperature and specific NO_x/PM ratios regeneration can occur passively. Given the variation in load, ambient temperatures, distance from the engine, number of cold starts, and engine run time, it is impossible to guarantee filter reliability or emergency power availability with a passive system. Passive system failure typically occurs when these narrow conditions do not exist, causing the filter to plug up with soot and engine back pressure to increase beyond acceptable limits. If left unattended, eventually the engine shuts down. Under some conditions the filter can be recovered through a costly and lengthy process of removing and cleaning the filter substrates and in extreme cases the filter becomes a fire hazard.



- NO downtime
- NO restrictions on cold starts
- NO restrictions on idle times
- NO dependency on engine temperature

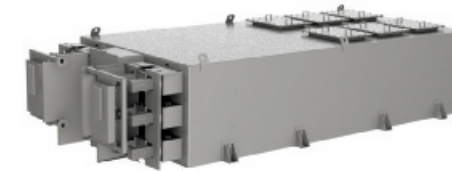
STATIONARY POWER GENSET PRODUCT LINE

RYPOS DELIVERS THE PRODUCTS AND THE PACKAGING YOU NEED TO MEET CARB LEVEL 3+ OR EPA TIER IV FINAL STANDARDS

Rypos Emission Control Systems employ state of the art patented Rypos Active Technology.

ACTIVE DPF AND ACTIVE SCR TECHNOLOGY

- › Reduces PM, CO, HC, THC, NO_x
- › Tier IV Final Compliant
- › Optional Integrated Load Bank
- › Optional SCR Pre-Heat Function
- › Low Profile Housing
- › Sound Attenuated up to Super Critical Grade



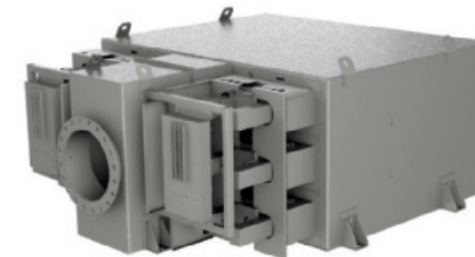
ACTIVE

AT-IV Series DPF Systems

Rypos Diesel Particulate Filter Model	Max Volumetric Flow Rate		~kW Rating
	m ³ /sec	CFM, ft ³ /min	
AT-IV-2	2.887	6,117	1,000
AT-IV-3	4.330	9,175	1,000
AT-IV-4	5.774	12,234	1,500
AT-IV-5	7.217	15,292	1,750
AT-IV-6	8.661	18,351	2,000
AT-IV-7	10.104	21,409	2,500
AT-IV-8	11.547	24,467	3,000
AT-IV-9	12.991	27,526	3,250
AT-IV-10	14.434	30,584	3,500

ADPF MODULAR LOW PROFILE SYSTEMS

- › Reduces PM, CO, HC, NO₂, THC
- › CARB Level 3+ Verified
- › Low Profile Housing
- › Intelligent Controls
- › Less than 1% Fuel Penalty
- › Sound Attenuated up to Super Critical Grade



ADPF Modular Low Profile DPF Systems

Rypos Diesel Particulate Filter Model	Max Volumetric Flow Rate		~kW Rating
	m ³ /sec	CFM, ft ³ /min	
ADPF-3	3.849	8,156	1,000
ADPF-4	5.132	10,874	1,500
ADPF-5	6.415	13,593	1,750
ADPF-6	7.698	16,312	2,000
ADPF-7	8.981	19,030	2,500
ADPF-8	10.264	21,749	3,000
ADPF-9	11.547	24,467	3,250
ADPF-10	12.830	27,186	3,500

RH SERIES CYLINDRICAL SYSTEMS

- › Reduces PM, CO, HC, NO₂, THC
- › CARB Level 3+ Verified
- › Cylindrical Form Factor
- › Intelligent Controls
- › Less than 1% Fuel Penalty
- › Sound Attenuated up to Critical Grade



RH Series Cylindrical DPF Systems

Rypos Diesel Particulate Filter Model	Max Volumetric Flow Rate		~kW Rating
	m ³ /sec	CFM, ft ³ /min	
RH304-M	0.324	687	50
RH404-M	0.432	915	100
RH306-M	0.486	1,030	125
RH406-M	0.648	1,373	175
RH404-L	0.840	1,780	200
RH408-M	0.864	1,831	250
RH406-L	1.261	2,671	300
RH408-L	1.681	3,561	350
RH410-L	2.101	4,451	500
RH408-XL	2.566	5,437	750

THE RYPOS INSIDE ADVANTAGE



Manufactured in the USA by Rypos, Active DPF Modules provide plug-n-play functionality to OEM's, Integrators and Packagers. By incorporating **the leading Active DPF Branded Module** into your emission control systems design, you'll deliver the reliability, intelligence and efficiency your customers demand.

