Product Information
Diesel Particle Filter DPF-RID Active

Regeneration type: Diesel combustion
Regeneration time: 20-25 minutes approx.
Housing: Stainless steel
Control: PIO-CAN-RID
Power supply: 12 V or 24 V DC
Range: > 1 kW - 500 kW

DPF-RID System Applications:

For applications where the temperature is critical: EU Stage IIIB/Tier IVi engines, stationary engines, generators, locomotives etc. Also, benefits from some CRT\textsuperscript{®} regeneration effect.

The active DPF-RID systems supplement the Johnson Matthey modular particle filter systems for non-road applications. The RID system operates at any exhaust temperature and is therefore ideal for use in applications with lower exhaust temperatures.

The filter monitor notifies the operator when filter regeneration is required. This fully automatic process requires no further input from the operator and regenerates the filter module at approximately 600°C. The regeneration process takes an average of 20-25 minutes.

Summary of Advantages:

- High rate of particle removal: >99% (particle count)
- Rapid filter regeneration
- Works at any exhaust temperature
- Can be used anywhere
- Modular construction
- Easy to install and maintain
- Continuous function monitoring with PIO-CAN filter monitor
- Suitable for almost all diesel engines and diesel fuel S content <1000ppm
Operation:

The DPF-BU diesel particle filter with diesel oxidation must be installed in engines with a low load ratio. The system consists of a filter element with an upstream catalytic converter for diesel oxidation. The control system is activated when a pre-set exhaust pressure is reached. A vaporizer injects diesel fuel into the exhaust gas stream after the turbocharger. The hydrocarbon (diesel) is oxidized over the catalytic converter, thereby raising the temperature before the filter. The desired temperature of 600°C is regulated and monitored by the PIO-CAN filter monitor. When the exhaust back pressure drops again, the control system shuts off the regeneration procedure.

The ceramic filter is enclosed and protected by a stainless steel housing. The extruded ceramic filter is made up of numerous square cells with alternately sealed parallel channels. The channel walls are porous. The alternating openings in the channels force the diesel exhaust to flow through the filter wall. The particles are trapped by the ceramic surface and pores. The filtered exhaust gas then leaves the filter through the open channel on the exit side.

The DPF-RID particle-filter system is supplied complete with vaporizer and control system.

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>Operating Range for Maximum TIER II/EU Stage II Engines**</th>
<th>Maximum Recommended Engine Exhaust Volumes in m3/h for EU Stage III A Engines at ±400°C and 70-100 mbar BP**</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPF-RID 80SL</td>
<td>up to 80 kW</td>
<td>600</td>
</tr>
<tr>
<td>DPF-RID 100SL</td>
<td>up to 100 kW</td>
<td>1000</td>
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<tr>
<td>DPF-RID 120SL</td>
<td>up to 110 kW</td>
<td>1300</td>
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<tr>
<td>DPF-RID2010SL</td>
<td>up to 150 kW</td>
<td>1800</td>
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<td>DPF-RID 2011SL</td>
<td>up to 200 kW</td>
<td>2000</td>
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<td>DPF-RID 2012SL</td>
<td>up to 220 kW</td>
<td>2300</td>
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<tr>
<td>DPF-RID 2013SL</td>
<td>up to 250 kW</td>
<td>2700</td>
</tr>
</tbody>
</table>

** These details may vary depending on specific conditions

Please contact us for further information.

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