Performance Upgrade

Upgrade Solution TPS-E to TPS-F
MWM TCG Gas Engine – Power Generation

“The benefits of the TPS-F turbochargers satisfy thousands of customers around the globe – day in, day out.”

Adrian Reinhart,
Product Manager Upgrades, ABB

Gas savings
Up to 1.0%

Performance
Outstanding
for harsh conditions

Solution
100% drop-in

Installation
easy & fast
Turbocharger Upgrade Solution
Upgrade from TPS-E to TPS-F

The solution in a nutshell
The TPS-F is the successor to the TPS-E turbocharger generation and provides several significant improvements. The TPS-F incorporates the latest compressor stage technology which features a quantum step in efficiency increase. This can be translated into overall engine performance which ultimately results in gas savings of up to 1%.

Upgrading to TPS-F also results in operational flexibility due to an increased compressor map width and compressor stability. As consequence, potential de-rating of the engine can be mitigated, leading to additional energy output.

This upgrade solution is a 100% drop-in solution with minimal down time and can be implemented during any service intervention. It is available as an upgrade solution for MWM gas engines of the TCG series.

Application
• Stationary high speed gas engines
• MWM series: TCG2016, TCG2020 and TCG2032
• Fitted with ABB TPS48-E, TPS52-E, TPS57-E
• All gas types: Natural, Mine, Dump, Bio, Sewage gas

Case study

<table>
<thead>
<tr>
<th>Engine</th>
<th>TCG2016 V12</th>
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<tbody>
<tr>
<td>Rated engine power</td>
<td>621 kW</td>
</tr>
<tr>
<td>Yearly running hours</td>
<td>8000 h</td>
</tr>
<tr>
<td>Gas savings due to TPS48-F Upgrade</td>
<td>1%</td>
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<tr>
<td>Annual added value</td>
<td></td>
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<tr>
<td>Gas savings (Natural gas)</td>
<td>13'000 Nm3</td>
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<tr>
<td>Savings (@ 0.3 $/Nm3)</td>
<td>3'900 $</td>
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