Oil & Gas

MTU Series 2000 Tier 4i: Designed for the future. Built for your success.

Power. Passion. Partnership.

MTU next generation Series 2000 Tier 4i: meeting emissions – and all your requirements.

MTU's commitment and heritage is to provide dedicated products fulfillingthe special requirements of the Oil & Gas industry. With maximum availability and reliability, low life-cycle costs and technical characteristics designed specifically for Oil & Gas applications, MTU's next generation Series 2000 engine is a leader in emissions reduction, economical operation and performance.

The MTU next generation Series 2000 meets Tier 4i requirements through the use of internal engine technology alone – requiring no aftertreatment or associated infrastructure. With the new Series 2000 you get lower emissions and lower fuel consumption plus extended component life. The end result is a lower cost of ownership in addition to lower emissions.

Designed to meet EPA Tier 4i, the MTU Series 2000 is also the technological base for the future requirements of Tier 4 final.
It offers a solid platform to ensure your current and future success.
The next generation Series 2000 is ready to order from your local MTU distributor.

MTU Series 2000 Tier 4i – your advantages:

Cost-effectiveness
- No additives needed for emissions control due to in-engine technologies
- Up to 10% better fuel economy*
- Up to 8% lower life-cycle costs*
- Extended component life for longer overhaul periods
- Uncompromising availability and reliability for maximized uptime

Performance
- Optimized torque design and improved engine characteristic curve
- Full performance available at an altitude up to 3,100 m (10,200 ft)
- Intelligent fit of the performance map with downstream components
- Outstanding power-to-weight ratio

Support
- MTU's extensive sales and service network provides swift, skilled and professional service, no matter where, when or why you need us.
- Experienced MTU specialists are your local, reliable partners

* compared to Tier2

Exhaust Gas Recirculation (EGR)

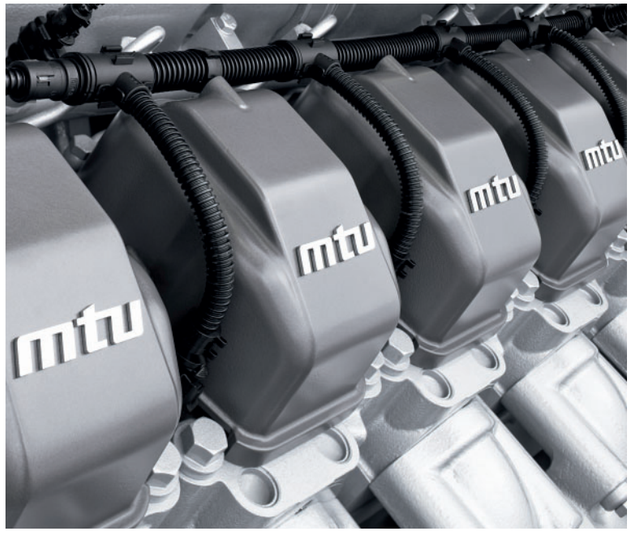
Technology
MTU's current engines > 560 kW/750 bhp, have been ideally designed to achieve EPA Tier 4i emissions with integrated cooled Exhaust Gas Recirculation (EGR).

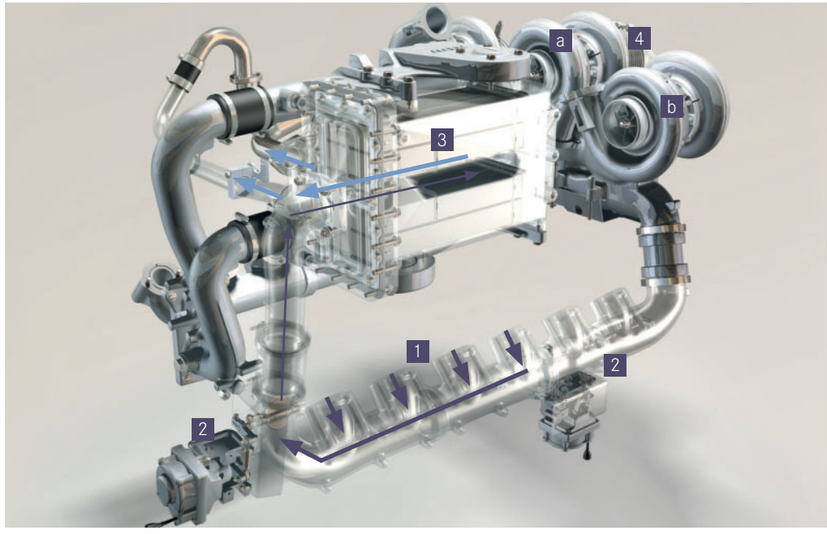
Engines with EGR offer excellent product characteristics that turn into customer value, while meeting the latest emissions limits. Controlled cooled exhaust gas recirculation means exhaust gas from a donor cylinder is fed into the EGR cooler, then returned to the cylinders. This lowers the combustion temperature, significantly reducing the production of harmful exhaust gases.
Control flaps allow the EGR rate to be ideally set for the engine's operating point, while maintaining the required emissions limits.
The two-stage compression of the charge air ensures low soot emissions, high power density and reliable mapping of engine characteristics.

Additionally, these engines with EGR and two-stage turbocharging are the platform for smart solutions for the future – to meet Tier 4 final.

Benefits
EGR, in conjunction with our other core technology, two-stage turbo-charging, offers many benefits:
- High design flexibility of exhaust piping system
- Optimized maintenance costs and operating costs
- Excellent transient behavior – quick load pickup
- Wide engine performance map – full torque curve
- Full power output available even at high altitudes
- Full power output available even at high ambient temperatures
- Accurate adjustment of EGR rate according to load conditions

The next generation Series 2000 is another example of MTU's overall commitment to the environment and to your success.





EGR Technology

1 **Donor Cylinder**
Feeds exhaust gas to the EGR cooler

2 **Control Flaps**
Automatic control of the exhaust gas recirculation rate up to max. 30%

3 **EGR Cooler**
Cools recirculated exhaust gas, which is then mixed with the charge air, lowering the combustion temperature

4 **Two-Stage Turbocharging**
Produce high power density and low soot emissions

4a High-Pressure Exhaust Turbo-charger

4b Low-Pressure Exhaust Turbo-chargers

Subject to change. | 3052031 | Edition 01/14 | VMC 2014-01 CM | Printed in Germany on chlorine-free bleached paper.

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