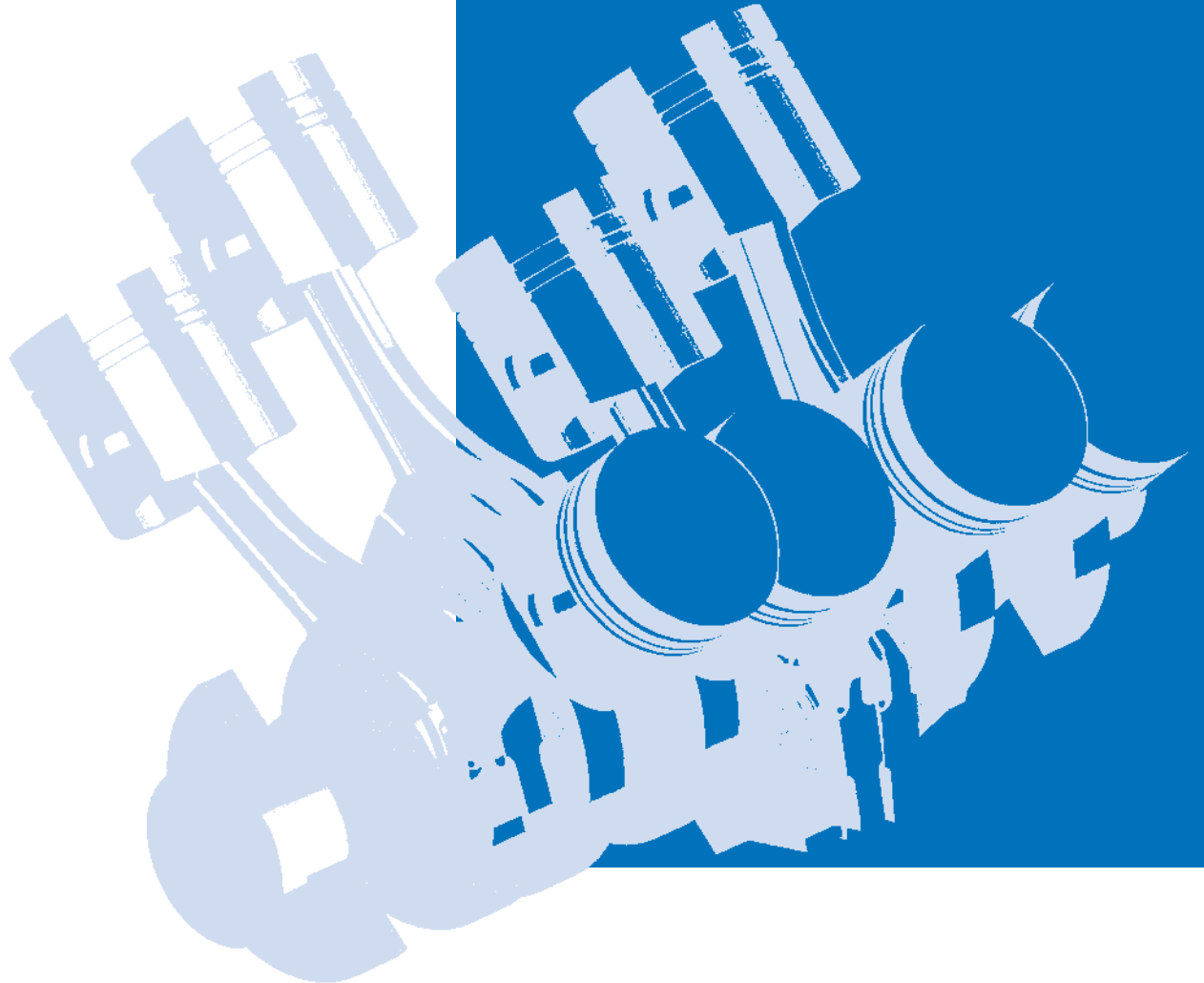




SCHMITT
ENERTEC



Biogas and Natural Gas:
Efficient and clean power from Gas Engines

Combined Heat and Power

Operation

SCHMITT ENERTEC is one of the leading operations in the range of the energy production made of Biogas, Sewege gas and Natural gas.

We realize and coordinate the development and production of combustion engine driven Combined Heat and Power units as well as their turn-key installation at the customer. Besides we offer excellent maintenance and service.

We are one of the few operations, whose authority refers to all ranges of CHP technology: Engine design, thermodynamics and hydraulics as well as electricity and controls are designed and manufactured in the own house. Our core authority has your origin in the engine construction. For 30 years we combine our Know How in engine technology with intelligent equipment design and innovative product developments in controls.

SCHMITT ENERTEC employs about 60 workers and engineers. Our factory in Mendig covers 16600 m² total area, 4600 m² production halls and 780 m² office areas. The site is supplied with heat and electricity by a SCHMITT ENERTEC vegetable oil CHP. One of our four test benches is exclusively for the advancement of engines and complete CHP. The further ones are for the final inspection of all components before delivery to the customer. Thus modern production capacities are available for up to 150 CHP units per year.



Markets

World-wide the meaning of renewable energy sources rises as alternative to the traditional energy production. Apart from the solar and wind energy thereby the energy production from Methane containing gases and liquid biomass plays an increasing role. SCHMITT ENERTEC is already active today on the most important markets of the world with distribution and service partners. Our export portion is more than 60 % - tendency rising. Due to this excellent positioning in the growing market of renewable energy we will continue our dynamic development also in the future.

Compact CHP units

SCHMITT ENERTEC CHP units are characterised by their compact design. Thereby the installation is simple and space-saving.

They contain the engine and generator, as well as all heat exchangers, waterpumps and silencers. The control system and switchpanel are mounted on the same frame and ready wired for operation.

The sound attenuating enclosure minimises the sound emissions below 70 dB(A). By simple handling of the doors, it permits easy access for Maintenance Services.



Power

Gas engines

Proven Mercedes Benz diesel engines form the basis for our gas engines series SE-MB. The high-efficient, low emission and long-live gas engines are manufactured up to the casting and forgings in the own house; Air/fuel mixer, combustion chambers, turbocharger, Inlet and exhaust manifolds are particularly designed for the gas operation by us. Five engineers work in our mechanical designing department with most modern 3D CAD systems. Their tendency is the constant improvement of our systems in particular regarding efficiency and service ability.



Control engineering

Controls is the second core authority of SCHMITT ENERTEC. Our CHP control integrates both the control system and monitoring of the engine and all auxiliary aggregates such as pumps or fans. As basis for this a programmable logic controller in accordance with industry standard is used. By the use of extension modules also the control system of external systems is possible e.g. for stirrers, gas drying process/cleaning, boilers or others. In our electrical department the control systems are designed to the needs of the customers.

Plant construction

The SCHMITT ENERTEC equipment construction takes place according to customer requirements by our project engineers and our installation team. In particular the compact CHP units can be integrated in existing buildings at low expenditure. Beside our compact CHP we supply also large units and complete plants. This covers unit sizes up to 1.5 MW just like units for wood gas or vegetable oil. We supply and install also the suitable gas coolers/dryers, desulfurization plants, gas compressors or heat accumulators.

In addition the version of our systems as container unit permits the turn-key delivery of complete CHP systems with heat distribution, remote cooling and exhaust stack at minimized installation expenditure at the customer. Another option is the compact outdoor enclosure, available for units up to 400 kW.





Service

Especially during the service and the maintenance of our CHP units the wide Know How of our company becomes noticeable for our customers. By the own development and production, in particular the engine and the control system, we are the direct partner in all interests of CHP technology.

For us there is no need to consult service stuff of subcontractors. Our service has its own machines for the processing of engine components as well as test stands for engines and complete CHP units.

This outstanding capacity puts us in advantage to most of our competitors, to provide to our customer fastest possible service and shortest downtimes.

Our maintenance contracts are closed at fixed prices. They contain any expenditure concerning general maintenance, machine overhaul as well as repairs or machine break. At the same time we guarantee an availability of your systems of over 90 %. A 24-hour service availability as well as the application of most modern remote access technology are therefore natural for us.