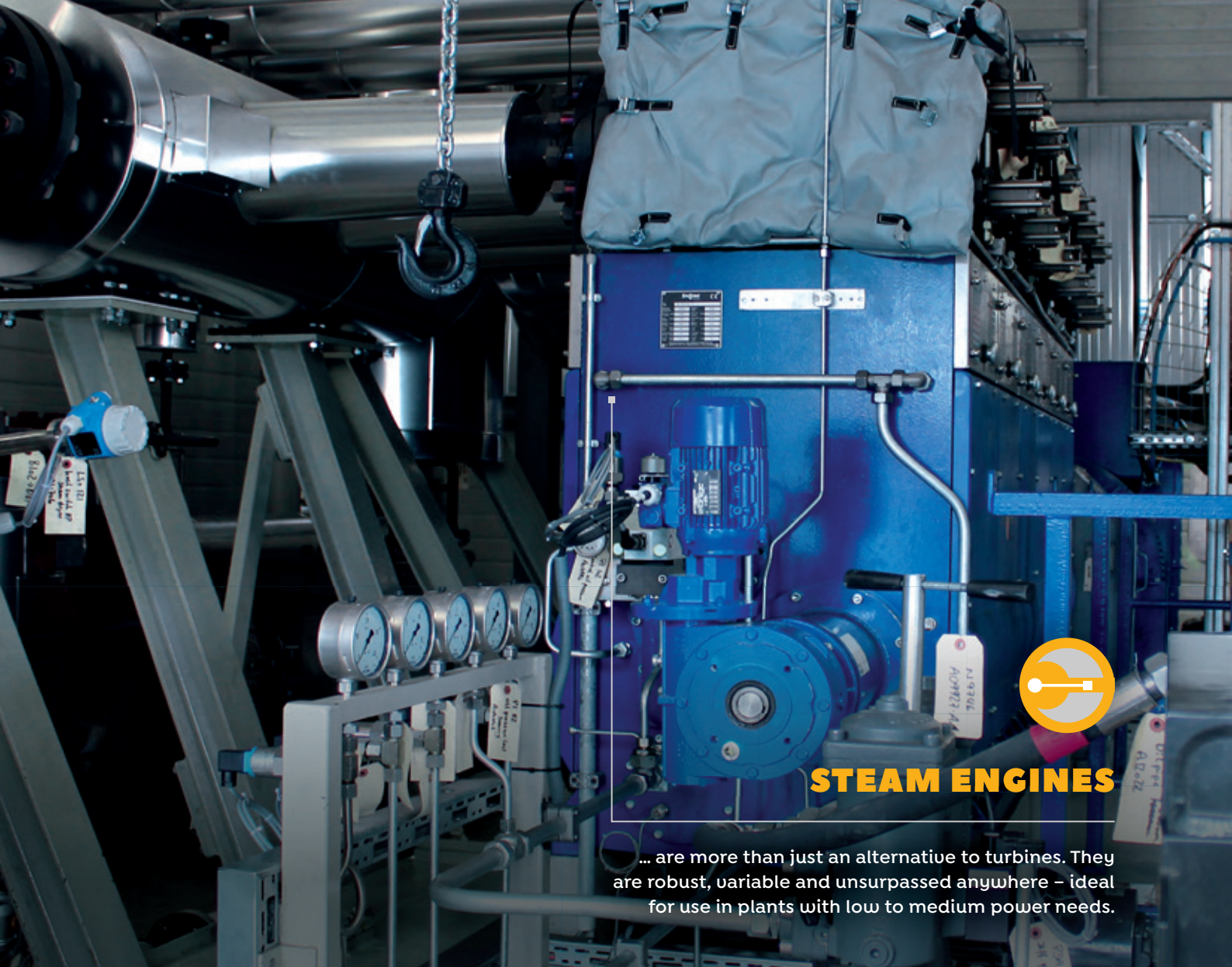




SPILLING STEAM ENGINES

**ECONOMICAL POWER
GENERATION, EVEN
UNDER DIFFICULT STEAM
CONDITIONS.**



STEAM ENGINES

... are more than just an alternative to turbines. They are robust, variable and unsurpassed anywhere – ideal for use in plants with low to medium power needs.

STEAM ENGINES

POWER GENERATION WITH THE SPILLING STEAM ENGINE – FLEXIBLE AND ECONOMICAL.

Generating electrical energy with steam often has practical limits on the face of it. But the advantages of the Spilling steam engine can be seen in situations with varying steam pressure or volume, when saturated steam is used or in heat-driven back pressure operation. The Spilling steam engine generates economical electrical energy even under these conditions.

The Spilling steam engine combines the thermodynamic advantages of a steam piston engine with a charge controller and the design principles of modern internal combustion engines. Its design is unparalleled anywhere in the world and makes the engine robust and variable.

Thanks to its modular design, which makes it adaptable to different throughput and pressure conditions, practically every customer need in this performance class can be optimally met.

HIGHLY ECONOMICAL

The Spilling steam engine enables optimum utilisation of the existing steam energy through one-stage and multi-stage expansion depending on the steam pressure conditions present.

Individual cylinder groups are regulated separately. As a result, only a single engine is needed to supply steam systems with different consumption levels. This saves you money and energy.

The outstanding part load behaviour of the Spilling steam engine is achieved by the Spilling charge controller. It implements operation over a large area with almost no throttle losses, thus ensuring a relatively constant efficiency level.

FIELDS OF APPLICATION

- ideal for use in plants with low to medium power needs
- Configurations from 1 to 6 cylinders, which can be combined with 15 different standardised piston diameters

EXAMPLES

- combined heat power plants (CHP)
- smaller plants that produce electricity from biomass from approx. 2 MW fuel input
- waste heat generation units from approx. 2.5 t/h steam mass flow
- waste incineration plants and thermal after-burning units

ADVANTAGES

- High degree of efficiency – 85% or more is possible
- Extremely good part load behaviour, and thus a large field of application
- Not sensitive to fluctuating steam conditions
- Saturated steam can be used without any problems
- High degree of availability and easy to use
- Robust, proven technology with low operating costs
- Oil-free operation, and thus no steam contamination
- Also ideal as a contracting solution

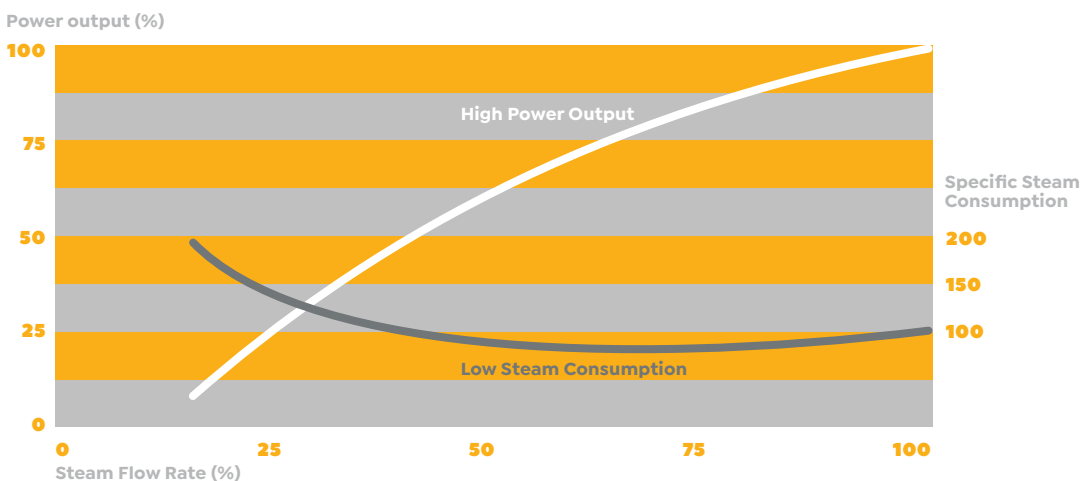
TECHNICAL DATA

- Inlet pressures: = 6 to 60 bar_a
- Back pressure: to = 20 bar_a
- Steam flow rate: to = 40 t/h



WASTE HEAT AND
WASTE STEAM –
USE THE EXCESS

OUTPUT AND CONSUMPTION CURVE





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