



ECOPOWER OPTIONS

HYDROPOWER, E-POWER AND DUALPOWER

RELIABLE
PROGRESSIVE

 **FAUN**
KIRCHHOFF GROUP

How ECO would you like it to be?

With FAUN, save cash while protecting the environment at the same time.

FAUN leaves the choice to you:

Our ECOPOWER options mean you can determine how comprehensively you want to optimise your refuse collection vehicle fleet in terms of reducing fuel consumption, particulate matter and nitrogen oxide, along with noise and CO₂ emissions.

With our intelligent systems, **HYDROPOWER** (lifter with KERS hydraulic accumulator), **E-POWER** (battery set for electrical operation of the body and lifter) or **DUALPOWER** (diesel-electric hybrid drive) you are relying on innovative and intelligent eco-systems, which are worthwhile both economically and ecologically.

In addition to the tangible benefits, such as up to 33 percent lower fuel consumption and CO₂ emissions, you can for example reduce noise generation with the DUALPOWER option from a typical 106 dB (A) to as low as 90 dB (A).

In addition to providing the technical benefits mentioned above, these positive effects are also ideally suited to improve your image in the local authority environment.

**FOR MORE INFORMATION
ON FAUN'S ECO OPTIONS:**

www.FAUN.com/ecopower-options

HYDROPOWER

Hydraulic accumulator for brake energy

The **HYDROPOWER** option offers the possibility of environmentally friendly, economic refuse collection by installing a hydraulic accumulator which is charged by the hydraulic pump during braking. The accumulated energy is then used to run the lifter.

The kinetic deceleration energy of a conventional refuse collection vehicle is normally given off as waste heat into the environment and is therefore "lost" in terms of running the vehicle.

HYDROPOWER converts most of the vehicle's kinetic deceleration energy into hydraulic energy. That means less wear on the conventional brakes and less use of the energy-intensive air pressure system.

The FCS (FAUN CONTROL SYSTEM) for the body controls the braking energy which is used to fill the hydraulic accumulator. As soon as the accumulator is filled, the accumulated energy is used to drive the lifting and tipping system. The energy obtained in this way is sufficient for several tipping processes, without having to increase the engine speed.

HYDROPOWER start-stop

A second pressure accumulator with a smaller volume is switched in parallel to the first and this one is only intended for hydraulic starting of the main engine.

+ Benefits:

Lower fuel consumption

The HYDROPOWER lifter consumes 2,985 litres less fuel per year. There is a reduction of up to 14 percent in consumption during collection operations. (Real values may vary depending on the operating conditions.)

14% reduction in CO₂ emissions

The HYDROPOWER lifter generates 7.912 tonnes fewer CO₂ emissions per year and per vehicle.

HYDROPOWER's compatibility

The HYDROPOWER option can be fitted onto any type of FAUN body and lifter.

E-POWER

Electric auxiliary drive

Another option in the search for lower fuel consumption and reduced noise emissions is the battery set that is charged via the "plug-in process" and used for the electrical operation of the body and lifter of refuse collection vehicles. This system is called **E-POWER**.

With conventional vehicles, the main engine provides energy for compacting and emptying containers via the pump linked to the auxiliary drive. With E-POWER vehicles, a battery pack which can be charged overnight at

low power consumption times provides the energy for the electrical drive of the body and lifter.

E-POWER start-stop

There is further potential for saving fuel if the vehicle engine is switched off when loading. The large electrical energy accumulator means the engine can easily be started again electrically to continue on its way. This option depends on the chassis manufacturer's approval.

+ Benefits:

Lower fuel consumption and the reduction of CO₂ and noise emissions

DUALPOWER

Generating energy when you brake

The requirements for a refuse collection vehicle engine are very wide-ranging and vary greatly during a daily round.

With the **DUALPOWER option** FAUN has created an optimised drive train with its own diesel-electric power unit. The chassis engine is switched off during collection. The energy of the braking process is accumulated electrically and reused in a sensible way for driving and working during collection operations. This not only relieves the stress on the main engine, but also on our environment.

Instead of being fitted with energy-intensive compressed air brakes, DUALPOWER vehicles are equipped with electric brakes which ensure energy recovery and less brake wear. When used in combination with an additional diesel generator switched on at the right time, fuel and CO₂ emissions are reduced by a third. The possibility of the chassis engine being switched off during collection operations and also the fact that the small power generator is enclosed in a sound-proofing capsule mean a massive reduction in noise pollution for loaders, drivers and the environment, as well as for your customers.

Take advantage of this unique energy concept and let DUALPOWER economise!

+ Benefits:

33% less fuel consumption

Fuel consumption has become a huge cost factor in terms of the proportion of the overall operating costs for a refuse collection vehicle. Measurement data currently put this at up to 40 percent. The FAUN DUALPOWER saves around one third of expenditure on diesel fuel in daily operation.

33% reduction in CO₂ emissions

Concepts for sustainability are now highly relevant for both local authorities and private companies. Only those who have coherent concepts in this area can retain their credibility over the long term. The reduction in toxic emissions achieved with DUALPOWER has a highly positive impact on your CO₂ footprint.

Incredibly quiet

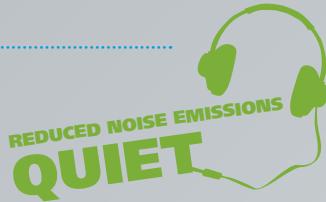
The DUALPOWER's quiet drive unit, which operates at 90 dB (A), means that it is hardly any louder than a speaker giving a presentation. As a comparison: other refuse collection vehicles generate approximately 106 dB (A) – as much as a chainsaw (to the human ear, a reduction of 15 dB (A) actually means there is only three percent of the original noise left).

The benefits of the FAUN ECOPOWER options



LOW-PRICED SAVINGS

- Lower fuel consumption



- Significantly lower noise emissions



- Concepts for sustainability are now highly relevant for both local authorities and private companies.
- The reduction in toxic emissions has a highly positive impact on your CO₂ footprint.



ECOPOWER OPTIONS		Lifter	Body	Chassis	Fuel economy	Noise emission reduction	CO ₂ emissions reduction
HYDROPOWER	Hydraulic energy recovery	x			14%	+	14%
E-POWER	Battery plug-in	x	x		20%	+	5-20% ⁽¹⁾
DUALPOWER	Diesel-electric hybrid drive	x	x	x	33%	+++	33%

Real values may vary depending on the operating conditions.
⁽¹⁾ dependent on the energy mix



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You can find up-to-date information about FAUN's ECOPOWER options on our website:
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