

FAUN x IFAT 2024

HOME OF ORIGINALS

OVERVIEW

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 System
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- The new ENGINIUS BLUEPOWER
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Meet us:

Munich Exhibition Centre, outdoor area, stand 712/5

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A space for originals: IFAT 2024 will be the stage for the refuse collection vehicle of the future and clean sweepers

Osterholz-Scharmbeck, 02.05.2024 – FAUN is making IFAT the "Home of Originals". True to this year's motto, the specialist for refuse collection vehicles and sweepers will be presenting a whole host of originals at the world's leading trade fair for environmental technologies from 13 to 17 May in Munich - vehicles and the people behind them. In FAUN's more than 1,500 square metre world of experience, every product and every player will be given space to showcase their strengths. In 2024, the focus will be on the refuse collection vehicle of the future, a refuse collection vehicle designed for absolute safety, the autonomous Trombia road sweeper and the new generation of ENGINIUS BLUEPOWER hydrogen refuse collection vehicles.

Our focus: Sustainable with safety

"The safety and comfort of operators and people in everyday life is our top priority," says FAUN CEO Patrick Hermanspann, explaining the refuse collection vehicle of the future. The rear loader is equipped with a wide range of technical details, including the brand new Safety User Display (SUD). The Safety User Display provides the loading personnel with additional perspectives (to the front, rear and inside the vehicle) via a camera at their workplace at the rear of the refuse collection vehicle, enabling them to operate more safely and with greater foresight. FAUN was nominated for the VAK Innovation Award for this option. Also installed on the refuse collection vehicle of the future: Al-supported rear area



monitoring, illuminated handles, a glove dryer and the Smart Compaction System (SCS) for automatic compaction of waste in the refuse collection container. Control based on various measurement parameters guarantees optimum loading while minimising energy consumption and wear on the vehicle. The new, electric powered footboard uses AI to react to the loader's hand movements and thus folds down or up. Al helps, for example, to precisely recognise and analyse objects and people in the vicinity of our vehicles. FAUN will also be presenting the new CITYJET generation of sweepers, offers for leasing and rental vehicles and options for special markets, as well as after-sales offers such as training or the prototype for a service chat.

Our trade fair innovations ensure sustainable cleanliness: The CITYJET sweeper is a new addition to the FAUN programme. "It combines the best of two worlds: Thanks to its exceptionally compact design, it is extremely manoeuvrable and easy to operate for municipal use. And thanks to its powerful drive, strong suction power, robust design and large volumes for sweepings as well as fuel and water supply, it is also ideal for heavier applications," says Patrick Hermanspann. FAUN is also presenting an autonomous sweeper for the first time, the TROMBIA FREE from Finland.

And you can even see a sweeper from the inside. If you like, you can experience the CITYJET from a completely new perspective using VR technology.

Climate-neutral trade fair appearance

FAUN is also committed to adhering to the highest sustainability standards when realising the trade fair stand and was awarded the GoGreen Pioneer status by the trade fair München at IFAT. FAUN is offsetting the resulting emissions, making its presence at IFAT 2024 100 per cent certified climateneutral. CEO Patrick Hermanspann: "For FAUN, the circular economy also













means avoiding unnecessary emissions at our trade fair presence and using raw materials consciously and reusably." In concrete terms, this means: avoidance, reduction, compensation. We avoid materials and special constructions that are only used once, rely on reusable and regional and seasonal products for catering and emissions that cannot be avoided are calculated precisely and offset by purchasing recognised climate protection certificates.

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IFAT2024 - Hersteller für Müllfahrzeuge und Kehrmaschinen - FAUN Gruppe

FAUN GROUP

The FAUN Group employs more than 2,000 people worldwide. The vehicle manufacturer is one of Europe's leading suppliers of refuse collection vehicles, road sweepers and hydrogen-powered commercial vehicles. FAUN has twelve plants in seven countries. The group is headquartered in Osterholz-Scharmbeck, Lower Saxony, and the FAUN Group closed the last financial year with a turnover of 500 million euros. FAUN is part of KIRCHHOFF Ecotec, the environmental division of the globally active KIRCHHOFF Group. In 2023, the KIRCHHOFF group of companies generated sales of 2.2 billion euros with 12,200 employees in the four divisions Automotive, Tools, Vehicle Conversions and Municipal Technology. The Group has 56 plants in 22 countries on five continents.













FAUN Safety-Performance-System:

Rubbish truck of the future - can do almost everything, except magic

Osterholz-Scharmbeck, **13.05.2024** Get to the vehicle, hand the bin over to the lifter and then off with the waste into the collection body. In principle, there is hardly any room for improvement in the principle of waste collection, one would think. But what FAUN is doing is using innovative technologies and artificial intelligence to make waste disposal more efficient and safer - for citizens, residents and, above all, for the operating personnel. Various assistance systems are available on a modular basis in the FAUN Safety & Performance System. Ex works in new lorries or for retrofitting.

Module I: Reversing camera system with person detection

WORKSPACE MONITORING WITH PERSON DETECTION monitors the working area at the rear of the vehicle and detects people using AI. This gives the driver an overview of what is happening in the loader's work area.

Modul II: Safety-User-Display

Brand new in 2024 and nominated for the VAK Innovation Award: The SAFETY USER DISPLAY (SUD), which shows the loading personnel at their workplace additional perspectives (to the front, rear and inside the vehicle) via camera to enable them to act more safely and with greater foresight. Currently available for FAUN VARIOPRESS and ROTOPRESS in conjunction with a FAUN SKYLIFT X.

The system consists of two monitors in the control panel carrier and three cameras. The front view camera shows the loader an image of the driver's view on the display. It switches on from 6 km/h or when the running board is activated. This means that the loader has an overview in the direction of travel and no longer has to lean into oncoming traffic for orientationRearview camera: Shows the area behind the vehicle in a kind of rear-view



mirror function. This gives the loader a full overview of what is happening, even if the loader has already reversed off before the vehicle comes to a complete standstill. Hopper-View: The camera in the rear section shows the situation in the loading unit, including the selected loading unit mode and cycle settings, as well as the fill level of the loading trough as a rough percentage. This provides an overview of the filling level of the hopper during the tipping process. It is no longer necessary to try to guess between the tipped bin and the lifter tipping chair whether the load tray is overfilled. Further data such as tonnes emptied per day, kilometres driven, payload, etc. are displayed when the vehicle is stationary for 5 seconds with loaded steps (e.g. at red traffic lights).

Modul III: Intelligent compaction in the collection container

The SMART COMPACTION SYSTEM (SCS) for optimised loading of the refuse collection vehicle. Compaction is controlled automatically so that the available volume and payload can be optimally utilised, while at the same time minimising mechanical stress on the body components and thus ensuring energy-efficient operation. Control based on various measurement parameters guarantees that the refuse collection vehicle is optimally loaded. The result: lower energy consumption and less wear and tear on the vehicle.

Modul IV: Gesture-controlled running board

The electrically powered FAUN POWERED FOOTBOARD responds to gestures. No more tiring bending down to fold the footboards up or down. Thanks to AI, the loader can even control the foot pedal using hand movements.

Modul V: 360°- Camera system with person detection

The ALL-ROUND VIEW WITH PERSON DETECTION improves safety through complete all-round monitoring of the vehicle and display for the driver, including AI person recognition. This facilitates safe manoeuvring in road traffic.

Modul VI: Loading tray fill level always in view

With SMART HOPPER CONTROL, the cargo bed is monitored by an Alcontrolled camera. The camera records the area in front of the lifter and inside the load tray. The AI automatically calculates the optimum time at which the compaction process should start based on the combination of "bin type, bin size and load tray utilisation".













Modul VII: Everything under control with Safety Zone illumination

Indirect, even illumination of the handles at the rear. The colouring and lighting of the ILLUMINATED & HEATED HAND GRIPS increase safety, the loader can see where he needs to grip and the handles are nice and warm even in winter.

And what else? FAUN is far from finished with modules I-VI. Other innovations include:

FAUN CONNECT transfers vehicle and route-relevant data to a cloud. This information is made available to the operators in a targeted manner. This allows routes to be optimised or route planning to be simplified and the vehicle status to be viewed

HYGIENE BOARD offers a hand-washing facility for loaders directly at their workplace. Soap, water and paper towels are neatly organised in one place: in the hygiene box under the body. No searching or loss of space.

GLOVE DRYER dries gloves while driving. The loading personnel can pack the wet gloves into an electrically operated heating box, which has been installed in the working area of the loader. This dries the gloves on the way from bin to bin.

By the way: FAUN not only uses innovative and sustainable technologies in its vehicles, but also in training and maintenance. FAUN therefore offers a comprehensive after-sales service.

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MISSION ACCOMPLISHED: The new BLUEPOWER with Hyundai fuel cell is here

Osterholz-Scharmbeck, 13.05.2024 – FAUN is presenting the new ENGINIUS BLUEPOWER for the first time at IFAT 2024. The hydrogen refuse vehicle has been given a major architecture update with many improvements.

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Many detailed improvements and a new main component

The biggest change is the fuel cell from Hyundai, which was developed according to the latest automotive standards and promises increased efficiency. There are also updates to the cooling system of the fuel cell, which is now operated with high-voltage fans and controlled pumps. This reduces the number of energy conversion steps. The complexity of the vehicle's electrical supply has been significantly reduced. Energy distribution has been optimised and the installation of components has been improved based on field experience. Insgesamt wurde die Komplexität um gut 300 Komponenten reduziert, was sich auch auf das Leergewicht des Fahrzeugs auswirkt.

GSR2, greater variance and new business areas

The vehicle package in particular, with a significantly reduced refrigerated body and more variability in the wheelbases, provides the opportunity to address new business areas. The first vehicles will be delivered in autumn 2024.

One milestone is the achievement of the current regulatory amendment General Safety Regulation (GSR2). To this end, company processes and



documentation have been established to provide better protection against cyber security attacks. ENGINIUS & KIRCHHOFF Ecotec are the first companies to achieve this certification.

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After the sale is far from over:

Our comprehensive after-sales service

Osterholz-Scharmbeck, 13.05.2024 – From the FAUN Academy to vehicle service with VR glasses - innovative and sustainable technologies are not only used in vehicles at FAUN, but also in training and maintenance. "Minimising downtimes and getting the vehicles back on the road quickly is the be-all and end-all for our partners," says CEO Patrick Hermanspann. For this reason, FAUN offers customised service packages in which, for example, customer service technicians can connect with a FAUN employee via smart glasses to work together live on the vehicle. Or the service chat bot for products and services - it answers questions about the rental fleet, spare parts sales or error codes. Patrick Hermanspann: "Intelligent service saves time and therefore money and conserves valuable resources."

FAUN-GPT - knows (almost) everything

First of all, ask the FAUN bot: A prototype of an Al-based chat bot for FAUN products and services answers questions about error codes, technical problems and vehicle operation immediately and around the clock, and also has lots of information about FAUN in general.

FAUNcademy – Online- Training offer

Training units that are specially tailored to the requirements of drivers and operators in waste disposal companies and city cleaning. FAUN trains staff in the handling and operation of its waste collection vehicles and sweepers - certificate included. The courses are very structured and are offered in



German and English at a FAUN location or at the customer's premises. Registration is possible directly online. The courses can be completed at any time. https://fauncademy.reteach.io/

Service glasses - support directly on the vehicle

Customers' service technicians can connect to a FAUN employee via smart glasses and work together live on the vehicle. All processes are now digitalised, and live data transmission from the vehicles allows the FAUN service team to immediately identify when and where support is needed. The glasses allow the technician to have both hands free to carry out the work assigned to him. Documents and photos can be displayed directly in front of the eye. The glasses have a battery life of eight hours, enabling face-to-face communication until a solution is found.

Electrified fleet

Not only our waste collection vehicles and our road sweepers can run on electricity. The FAUN service fleet is also electrified. Already on the road: 14 ID Buzz from VW with 77 kWh battery capacity and a range of 300 kilometres. And if you want to go on a longer trip: Charging time on the road from 10 % to 80 % in around 30 minutes. Our concept: Charging takes place while the customer is at work, which saves waiting time. Anyone who connects a FAUN Buzz to the cable receives a 50 euro sustainability bonus.

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The CITY models - low-emission, manoeuvrable, optimised payload and leak-proof: the solution for the city

Osterholz-Scharmbeck, 13.05.2024 – It will (also) come through this hollow alley! There is hardly a street too narrow and no alley too winding for the CITY. The manoeuvrable vehicles are made for urban terrain, either for travelling alone or as a satellite vehicle with transfer to a larger refuse collection vehicle. With a volume of 6 or 10 cubic metres, the CITY can be mounted on different chassis. In Munich, FAUN will be showcasing the CITY series on the environmentally friendly FUSO eCanter, the electric GOUPIL chassis and as the BIONEA on a Renault chassis.

The BIONEA, for example, can hold 10 m³ of organic waste in its aluminium body on a 12 t chassis.

What all CITY models have in common: the short wheelbase and short rear overhang make them functional and easy to manoeuvre, making them ideal for waste disposal in difficult access areas such as narrow streets or pedestrian zones. The special agility also makes manoeuvring and frequent reversing unnecessary. The smallest CITY, for example, has a turning circle of just 12 metresThe design as a double-walled collection container made of aluminium alloy (including press plate on slide) ensures an optimised payload and step compaction for optimised loading capacity. The CITY is ideal for the disposal of 60 to 1,100 litre containers and is suitable for household and organic waste. This is because the corrosion-resistant base surface is absolutely leak-proof. It is possible to empty two two-wheel



containers or one four-wheel container at the same time. Emptying takes place via high discharge.

Plenty more possibilities

True to the motto "mix and match", the CITY vehicles are available with additional equipment such as DIN folding arms, a lid opener for 1,100 litres with sliding lid, central lubrication (manual/automatic), reversing camera, running boards, LED lighting, special paintwork or foiling as well as preparation for weighing and identification systems.

The vehicles are manufactured from aluminium at the French FAUN plant in Lambesc.

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Five vehicles, one mission:

Clean roads with clean technology

Osterholz-Scharmbeck, 13.05.2024 – A new addition to the sweeper family - now it's time to tidy up!

In addition to the tried-and-tested VIAJET series, the new CITYJET series now also ensures clean streets and squares. CITYJET is the agile, economical all-rounder for the city, with a capacity of 5 or 6 cubic metres or even for IFAT 2024.

The CITYJET series was developed based on FAUN's many years of experience and the requirements of international partners and customers. The CITYJET sweeper is a series product that is sold worldwide as a permanently installed complete machine or as a CBB kit (complete body build) and complements the product portfolio of truck-mounted sweepers. The series is not only perfectly tailored to our customers' applications, but also optimised for the manufacturing processes at the new production plant in Grimma. We will have produced the first 100 machines by the end of this year (2024).

Clean conditions worldwide

The CITYJETs are already being used successfully in many parts of Europe. In Italy, France, Spain, Germany, the UK and even Australia, they are already cleaning up spick and span.



CEO Patrick Hermannspann: "The CITYJET combines the best of both worlds: Thanks to its exceptionally compact design, it is extremely manoeuvrable and easy to operate for municipal use. And thanks to its powerful drive, enormous suction power, robust design and large volume for sweeping debris as well as fuel and water, it is also ideal for heavier jobs." And it shines with these features: strong sweeping performance, low operating costs, minimal environmental impact, simple and ergonomic operation, modern and practical controls as well as a long service life and the usual FAUN quality.

To meet the highest demands, the machine has a newly developed extraction fan for maximum suction power. The powerful 100 kW superstructure motor achieves an air flow of around 19,000 m³/h and a water column of approx. 1,000 mm. Suction devices and disc brushes on both sides as well as an automatically swivelling, central sweeping roller can be controlled independently of each other and enable cleaning on one or both sides. The machine is easy to operate from the driver's seat.

The CITYJET was developed according to the highest environmental and sustainability standards and is a real geek. It achieves top marks for dust and noise emissions. The superstructure engines used are certified according to current exhaust emission standards. The water that is sucked up is recovered thanks to waste water recycling and reused immediately. To avoid microplastics, the water tanks are made of 100% recyclable polyethylene.

The manoeuvrable speedster's safety features include an automatic, multistage safety support on board as well as a two-hand control for closing the tailgate in the rear area, a radio remote control for unloading operations with an overview, a white noise warning tone for container movement and reversing as well as a warning if the container is not fully lowered or closed.













Proven sweeper classics: VIAJET 5 to 7

Whether small or large - always environmentally friendly, clean and quiet

The big siblings of the CITYJETs are the VIAJET 5, 6 and 7 sweeper bodies for trucks. VIAJET 5 is particularly suitable for urban roads, while the VIAJET 6 and VIAJET 7 in the vario class can be used both in urban and rural areas. All three members of the VIAJET family are equipped with the patented FAUN air recirculation system as standard, which guarantees the best emission values in the exhaust air. During the sweeping process, the machine draws in 100 % air, 70 % of the air remains in the sweeping circuit through recirculation and only 30 % escapes to the outside. This means that only 2 % of fine dust particles are released into the ambient air with the exhaust air.

The VIAJET 5 combines a high usable volume with compact dimensions. It is particularly suitable for municipal use. The water tank with a capacity of around 1,000 litres requires few refuelling stops and ensures longer sweeping intervals. The two "big VIAJET sisters" 6 and 7 - the Vario class can be customised with a wide range of equipment and combination options to suit almost any application, such as construction site use. Be it in terms of water tank volume or drive concepts. As shown at IFAT 2024, the VIAJET 6 is also available on a Designwerk chassis with an electric motor. The VIAJET 7 is suitable for both municipal street cleaning and construction site applications.

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TROMBIA FREE:

Innovation to revolutionise the sweeper sector

Osterholz-Scharmbeck, 13.05.2024 – In close cooperation with its Finnish joint venture TROMBIA Technology, FAUN is revolutionising the sweeper sector with TROMBIA FREE and is once again making a valuable contribution to climate protection.

TROMBIA FREE - sustainable, efficient and quiet

Based on the patented Trombia cleaning technology, TROMBIA FREE is the world's first fully electric, autonomous sweeper for street and area cleaning in industrial or closed urban areas. The smart sweeping system navigates independently along defined routes and removes heavy dirt, road and industrial dust waterlessly - and effortlessly. The special feature: TROMBIA FREE enables surfaces to be cleaned up to 10 times faster, but consumes only 15 per cent of the energy required by advanced high-performance sweepers.

The TROMBIA FREE sweepers utilise GNSS satellite data, odometry data and are equipped with autonomous, lidar-based image processing technology. This enables precise navigation and obstacle detection regardless of weather and light conditions: Indoors or outdoors, in darkness or bright sunshine, in rain or snow - TROMBIA FREE is always safe to use. The all-electric drive also ensures completely emission-free and low-noise sweeping: The noise level of TROMBIA FREE is more than 20 decibels lower than that of a conventional sweeper.

Patrick Hermanspann, CEO FAUN Group: "Climate change and increasing environmental pollution require a radical rethink in many areas of life.

TROMBIA FREE epitomises how innovative ideas become reality and paves the way to a cleaner, healthier and guieter future for the sweeper sector."



Four for the winter

And when it's not about dirt and dust, but snow, FAUN also has energetic helpers in its programme for clearing roads and surfaces of all kinds: the SNOWEK high-end snow ploughs.

SNOWEK U- PLOUGHS are designed for efficient snow clearance on large areas. They are ideal for clearing large amounts of snow in a single pass, and thanks to the automated hydraulics, the U-ploughs can be used like normal diagonal ploughs.

SNOWEK V- PLOUGHS are made for clearing snow on a wide range of surfaces of different sizes and for stubborn snow masses. In the V-position, the plough is also ideal for clearing forest paths thanks to its positive blade angle and optimised blade pattern.

The new SNOWEK DIAGONAL WINGS of the AA series are used to clear snow from urban footpaths and cycle paths, roads and other types of outdoor surfaces. The plough offers a collision avoidance system as a new function.

SNOWEK SAND SHOVELS are designed for the efficient sanding of driveways and roads.

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