



SCANIA FENCER F1

FOR URBAN TRANSPORT OPERATIONS



SCANIA

DESIGNED FOR SUSTAINABLE AND EFFICIENT MOBILITY

Based on solid engineering experience, our new generation of buses has been developed to meet the demands of today's and tomorrow's cities. Energy efficient and available in a wide range of powertrains, it offers the latest technology in everything from safety systems to reduced emission and noise levels. And through excellent uptime and fuel economy, the Scania Fencer allows sustainable mobility to go hand-in-hand with operating economy.

For a better city environment

Having the right vehicle for the operation, and using it efficiently, is the best way to minimise environmental impact. We offer internal combustion engines which can run on diesel, HVO or biodiesel in order to meet the requirements of all urban operations. Through high quality vehicles and innovative technical solutions, maintenance, and a range of Connected Services, we address fuel efficiency from all angles, helping operators to reduce emissions and fuel costs.

To create a positive passenger experience, our buses have independent front suspension that makes the ride more comfortable. Design materials used in the buses create a bright and welcoming passenger environment.

To help prevent accidents and create a safer city environment, our buses have built-in state-of-the-art safety systems and features. These help the driver by increasing their awareness of other road users, and even help to control the vehicle when required.

Energy efficiency lowers operating cost

Public transport operators know the importance of keeping operating costs to a minimum, and fuel consumption is one of the main contributors to cost. An energy efficient powertrain can therefore offer significant savings in fuel. Scania develops and offers highly energy efficient powertrains. Compared to previous models, the new generation of Scania coaches offers fuel and emissions savings without compromising on performance. This is achieved in a number of ways, with the most significant savings coming from improved engine and gearbox efficiency, weight reductions and the addition of a start/stop function. Beyond the powertrain, driving style has a major impact on fuel consumption. Our driver training services can help your drivers to reduce fuel consumption by adapting their driving style to the characteristics of a Scania powertrain. In addition, our advanced driver assistance systems and top-quality maintenance services help to keep your coach on the road.

Ensuring availability through reliable solutions

To make urban operations cost-effective, it is important to reduce downtime and increase usage. Our buses are based on proven technology and components, which results in chassis and drivelines that are reliable, durable and robust. That reliability is the key to minimising the time in the workshop and maximising the use of the vehicle. Our buses are designed and engineered to ensure that sensitive and expensive components are protected in the event of a collision. Limiting damage and avoiding deformation of components such as the steering, aftertreatment system, and batteries is critical for minimising costs and reducing complex and time-consuming repairs. In addition, our buses are designed to facilitate maintenance and make it as efficient as possible. Here, Scania, in close collaboration with Higer, takes full responsibility for excellent spare parts availability.

Excellent passenger capacity

Our buses allow operators to keep costs down by minimising the number of vehicles required during peak hours; high axle load capacity, reduced chassis and body weight, and new interior layout options mean vehicle weight can be kept down while increasing passenger capacity.

A first-class driver area

A bus operating in urban traffic is constantly exposed to the risk of external damage and the work environment for the driver can be very demanding. A quality driver environment can therefore play a crucial role in reducing the risk of collisions, downtime and sick-leave, while increasing employee retention. The driver area in our buses is simply first-class and can even be said to be industry leading. A great turning radius, good visibility, and an overall well-balanced vehicle makes for excellent driveability, while advanced driver assistance systems give the driver good control of the vehicle through improved assisted handling, steering and braking. This increases safety and helps minimise accidents and the associated costs. Due to the demanding work environment, operators also face challenges when it comes to sick leave and employee retention; that's why we've designed the best possible work environment for drivers in terms of ergonomics, reachability, climate control, safety features and an overall quality feel.

PRODUCT DESIGN FEATURES

The Scania Fencer is designed and produced in a partnership between Scania and Higer. Everything from the chassis construction to the powertrain and the body has been developed and thoroughly tested with a focus on reliability and performance without compromising on energy efficiency. The modular process for constructing the Scania Fencer body reduces production lead time and provides high serviceability through the generalisation of spare parts.



Powertrain technology

The highly dependable, durable, and robust powertrains enable fuel savings, achieved through a number of factors such as; engine efficiency, improved gearbox, weight reduction and the addition of a start/stop function.

Chassis frame construction

The strengthened front axle, in combination with the ability to now use wider tyres, means that load capacity is increased from 7.1 to 8.2 tonnes. This allows higher passenger capacity. It also enables optimised weight distribution between the front and rear axles.

Additionally, chassis weight has been reduced by 2% (>100 kg) without compromising robustness, contributing to lower fuel consumption.

Fuel tanks

2x124 litre fuel tanks forward of the drive axle.

Front suspension technology

Without compromising on passenger capacity, the new independent front suspension offers excellent passenger comfort and enables a wider aisle (900 mm) resulting in new layout possibilities, increased passenger flow, space and accessibility.

The new rigid front suspension also increases passenger capacity and offers good passenger comfort.

Electric system

The new power supply architecture comes with improved electronic control units (ECUs) and functions that improve performance and facilitate diagnostics for repair and maintenance. It also enables new functionality within ADAS, e-mobility and autonomous transport systems.

Exterior design

Buses are a natural part of the cityscape, and the new styling with an attractive appearance, minimalistic design and high flatness contributes to a good passenger experience and accessibility for all passengers.

Additionally, the use of materials such as fiberglass along with anti-corrosion treatments have a positive impact on weight, quality and maintenance.

Interior design

The interior facilitates maintenance and daily cleaning thanks to its modular front roof with a wide access port and a reversible electrical cabinet, long-life LED lighting in the ceiling and a sloping floor for easy cleaning.

In addition, there is a hidden lock button for the air duct structure, which enables easy installation and maintenance.

Driver area

Offers excellent ergonomics through all-angle step-less seat adjustments, adjustable instrument panel, flexible switch placement. A lower instrument panel increases visibility.

The buses have excellent drivability with a great turning radius, advanced driver assistance systems, and improved assisted handling, steering and braking. Also, they offer increased safety, a better climate system and good noise and vibration reduction.

Safety features

Scania buses have advanced driver assistance systems (ADAS) including vulnerable road user collision warning, blind spot warning, adaptive cruise control, attention support, and advanced emergency brakes. Further electro-pneumatic parking brake technology avoids unintentional bus motion and thus potential accidents.

Through reinforced chassis construction, our buses are built to protect sensitive components.

Powertrains

The Scania Fencer offers a wide range of energy efficient and reliable powertrains optimised for inner-city and suburban traffic.

Euro 6	Output	Torque	Emissions control	Fuel options
7-litre	280 hp (206 kW)	1200 Nm	SCR	Biodiesel, HVO, diesel
9-litre	280 hp (206 kW)	1400 Nm	SCR	HVO, diesel
9-litre	320 hp (235 kW)	1600 Nm	SCR	Biodiesel, HVO, diesel
9-litre	360 hp (265 kW)	1700 Nm	SCR	Biodiesel, HVO, diesel
Fuel capacity (usable volumes): 140–360 litres (2-axle) for high floor 140–275 litres, 140–360 litres (3-axle) 180–360 litres (low articulation), 180–560 litres (high articulation)				
9-litre	280 hp (206 kW)	1350 Nm	EGR	Biogas, natural gas
9-litre	340 hp (250 kW)	1600 Nm	EGR	Biogas, natural gas

Fuel capacity: 1260–1875 litres

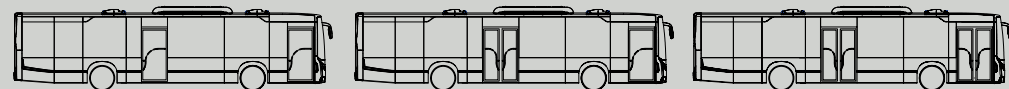
Heights

The height of the Scania Fencer 1 is dependent on the choice of propulsion, with gas tanks and electric components positioned on the roof. Scania Fencer 6 has a maximum height of 3.4 m.
3.3 m (hybrid/BEV)
3.2 m (diesel)

Axles, doors, lengths

The Scania Fencer is available in different versions and several options for door configurations to be able to meet the different demands of passenger capacity and flow.

2-axles, 10.8 m, 12.0 m, 12.5 m, 13.0 m

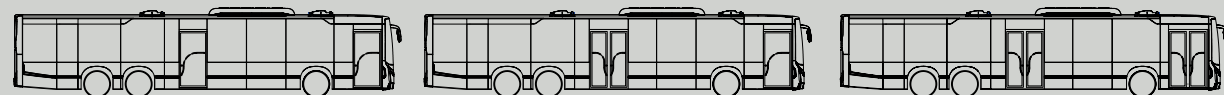


1-1-0

1-2-0

2-2-0

3-axles, 13.0 m, 15.0 m



1-1-0

1-2-0

2-2-0

Product specifications

General

Wheel configuration: 2-axle, 3-axle with tag axle (steered)

Door configuration:

1-1-0, 1-2-0, 2-2-0 (2-axle)
1-1-0, 1-2-0, 2-2-0 (3-axle)

Dimensions

Length:

10.8 m, 12.0 m, 12.5 m, 13.0 m (2-axle)
13.0 m, 15.0 m (3-axle)

Width: 2.55 m

Height:

3.2 m (diesel)

Passenger area

Seating: Finsa seats or customer choice, wheelchair ramp at front door, four priority seats with folding armrests, location for wheelchair or pram, folding seats, optional wheelchair ramp at middle door

Equipment: Interior LED lighting, optional luggage rack, camera surveillance, infotainment system (Wi-Fi), USB charger, interior fluorescent lighting

Roof hatches: Manual

Driver area

Seating: Driver seat ISRI

Instrument panel: Adjustable

Support systems: Scania Driver Support, electro-pneumatic parking brake, adaptive cruise control, vulnerable road user collision warning, blind spot warning, lane departure warning, hill-hold

Equipment: Optional audio system, announcement system, USB charger

Destinations signs

Placement: LED destination sign in front, side and rear

Climate system

Heating and cooling: Convector circuit in passenger area, defroster, temperature-controlled ventilation for passengers. Optional auxiliary heater (diesel or gas), separate or combined air conditioning for the driver, air conditioning for passengers

Powertrain – Combustion, Euro 6

Biodiesel, HVO, diesel:

7-litre 280 hp (206 kW), torque 1200 Nm
9-litre 320 hp (235 kW), torque 1600 Nm
9-litre 360 hp (265 kW), torque 1700 Nm

HVO, diesel:

9-litre 280 hp (206 kW), torque 1400 Nm

Fuel capacity (usable volumes):

2x124 litre fuel tanks

Gearbox:

12-speed with Scania Opticruise
ZF Ecolife 2 6-speed fully automatic gearbox

Electrical system

Equipment: LED headlights, LED daytime running, position and indicator lights, LED side and rear lights
Battery 230 Ah or dual battery system
Alternator 2x180 A

Brake and safety equipment

Equipment: Disc brakes, electronic brake system (EBS), anti-lock brake system (ABS), traction control (TC), integrated retarder, bus stop brake, rear view camera, fire extinguishing equipment in the engine compartment

Suspension and wheels

Independent front suspension or rigid front axle (RFS K chassis, IFS C chassis), kneeling front door, automatic or manual control, total raising and lowering. Optional kneeling whole front or whole side

Rims: Steel (standard) or aluminium (optional)

Tyres: 275/70 as standard. Other sizes available depending on chassis specification

Doors and windows

Optional: Tinted windows, double-glazed side windows, hopper window, double doors, inswing or sliding, at customer's choice



SERVICE OFFERING

Our offering consists of a number of services for minimising emissions, increasing safety, and improving operating economy, focusing on areas like fuel efficiency and uptime. These services allow us to provide solutions to each operators' individual challenges and needs.

Scania's data services generates insight and create business value through anything from position and speed to performance and driving style. Scania's data API's comply with the rFSM standards 1.x and 2.x.

Driver services

Enables drivers to drive safer and more efficient, and can reduce the need for maintenance.

Scania Driver Training

Combines theory and practice, covering topics such as safe and efficient driving, especially important when it comes to electric vehicles, not only to save energy but even regenerate energy by optimal driving. Handles also other aspects of professional driving, always with a focus on profitability, fuel economy and reduced emissions.

Scania Driver Evaluation

An on-board device that assesses the driving style by comparing it to that of drivers operating in similar conditions. The result, which can be used to achieve long term improvements, is visible in the Scania Fleet Management Portal and Scania Fleet App.

Tachograph services

The fleet is monitored via the tachograph portal, facilitating compliance with regulations regarding driving and working time. A tool that provides in-depth insights into driver activities and vehicle use, thus helping operators maximise uptime, comply with laws and regulations and meet health and safety requirements for drivers.

Fleet management services

The data collected on board the buses provides valuable insight into driving styles, productivity and economy. This level of tracking and diagnostics can bring significant benefits in terms of increased uptime, improved safety and reduced operating costs. Through the Scania Fleet Management Portal and the Scania Fleet App, operators can gain access to valuable insights and reap the benefits.

Scania Zone

A position-based system for real-time vehicle adjustments in pre-defined zones. It allows operators to ensure that each vehicle stays within the set speed limits, increasing city safety and lowering fuel consumption. Scania Zone is an optional add-on in Scania's fleet management system.

Repair and maintenance services

Having access to professional workshops and quality spare parts is key to keeping the vehicles in prime condition. Scania offers a range of repair and maintenance services:

Scania Fleet Care

The fleet operator receives a dedicated Fleet Manager from Scania equipped with advanced tools and systems, to optimise maintenance and prevent breakdowns based on operational data and vehicle data analysis.

Customer workshop services

A tailored collaboration service designed to facilitate for the operator by streamlining and quality assuring the workshop and workshop processes to meet Scania standards.

Scania Higer service team

In close cooperation, Scania and Higer offer comprehensive and high-quality services to keep the vehicles in peak condition, increase utilisation and improve operating economy. Well-established and trusted service networks offer technicians regular service training with training material developed in multiple languages, assuring professional technical support 24/7.

Scania and Higer are both suppliers operating on the global market, and provide spare parts through consignment stock, online ordering systems, and more.

Additionally, all bus bodies carry a 24 month or 150,000 mileage warranty.