

## HOLTHAUSEN

CLEAN TECHNOLOGY





### **WORKING ON ZERO-EMISSION MOBILITY**

Holthausen Clean Technology has been involved in hydrogen-electric and battery-electric vehicles for more than ten years now.

We started as a developer, converting vehicles powered by fossil fuels to emission-free sustainable future with zero emissions. One example from our portfolio is the world's first hydrogen-powered sweeper.

## 50Tons GVW 4x2 tractor for friesland campina



### 27Tons GVW 6x2 rigid chassis hook lift + crane



### Rigid chassis in different configurations available



### 50Tons GVW FCEV 6x2 for Maserfrakt Sweden



# 64Tons GVW FCEV 6x2 for Maserfrakt Sweden (only one in the world) 1250 KM range fully loaded





160

#### Electric driveline

Electric motor type: 160-M Motor power: 160 kW Voltage system: 450 V Battery pack: 70 kWh Onboard-charger: 22 kW

Type of connection for charging: CCS / Type 2

#### Hydrogen driveline

Type Fuel Cell: Horizon-80-F Power Fuel Cell: 80 kW Cylinder pressure: 350 Bar

Standard amount of Hydrogen: 30 kg

#### **Basic specifications chassis**

Type chassis: 160 (DAF LF) Minimal wheelbase: 3.900 mm

Type of gearbox: 6 speed automatic Allison gearbox PTO: Possibility to be connected to the gearbox

Structure options: Box, RCV, Refrigerator, empty chassis

#### **Options for 160**

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW



250

#### Electric driveline

Electric motor type: 250-M Motor power: 250 kW Voltage system: 700 V Battery pack: 140 kWh Onboard-charger: 22 kW

Type of connection for charging: CCS / Type 2

#### Hydrogen driveline

Type Fuel Cell: Horizon-120-F Power Fuel Cell: 120 kW Cylinder pressure: 350 Bar

Standard amount of Hydrogen: 30 kg

#### **Basic specifications chassis**

Type chassis: 250 (DAF CF) Minimal wheelbase: 3.850 mm

Type of gearbox: 12 speed automatic TraXon gearbox PTO: Possibility to be connected to the gearbox

Structure options: Box, RCV, Refrigerator, empty chassis

#### Options for 250

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar

Stronger motor: 450 kW motor

Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW



450

#### Electric driveline

Electric motor type: 450-M Motor power: 450 kW Voltage system: 700 V Battery pack: 140 kWh Onboard-charger: 22 kW Type of connection for charging: CCS / Type 2

#### Hydrogen driveline

Type Fuel Cell: Horizon-120-F Power Fuel Cell: 120 kW Cylinder pressure: 350 Bar

Standard amount of Hydrogen: 30 kg

#### **Basic specifications chassis**

Type chassis: 450 (DAF XF) Minimal wheelbase: 3.850 mm

Type of gearbox: 12 speed automatic TraXon gearbox PTO: Possibility to be connected to the gearbox

Structure options: Box, RCV, Refrigerator, empty chassis

#### Options for 450

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW



### **Development & Engineering**

We also offer in house engineering for new projects for both electrical and hydrogen applications including software development







- WORKING ON ZERO-EMISSION MOBILITY
- Holthausen Clean Technology is involved in several projects to solve the chicken and egg problem. We currently own two gas stations.
- Our first station is situated at Groningen. The second station is situated at Amsterdam, in the middle of Amsterdam's logistic center.







If you want to stay informed of all developments, visit the website and register for all our news:

www.cleantechnology.nl