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# BRIEF INFORMATION

## AdBlue pump

- Ensures stable operation under various and demanding conditions
- Supports long-term sealing integrity and product durability in different weather conditions
- Robust design with long-lasting components to reduce operational costs
- Clear mounting instructions provided to prevent damage from incorrect installation

## PRODUCT FEATURES

### Design and function

The AdBlue pump – also commonly known as the urea dosing pump – is a key component in modern exhaust aftertreatment systems, designed to comply the latest global emission standards. Its main function is to convert the vehicle's electrical energy into hydraulic energy, ensuring the precise transfer of AdBlue from the storage tank to the injection unit in the exhaust system.

Engineered for reliability and precision, the HELLA AdBlue pump supports long-term vehicle performance while helping manufacturers to meet mandatory emission standards and deliver cleaner mobility solutions.

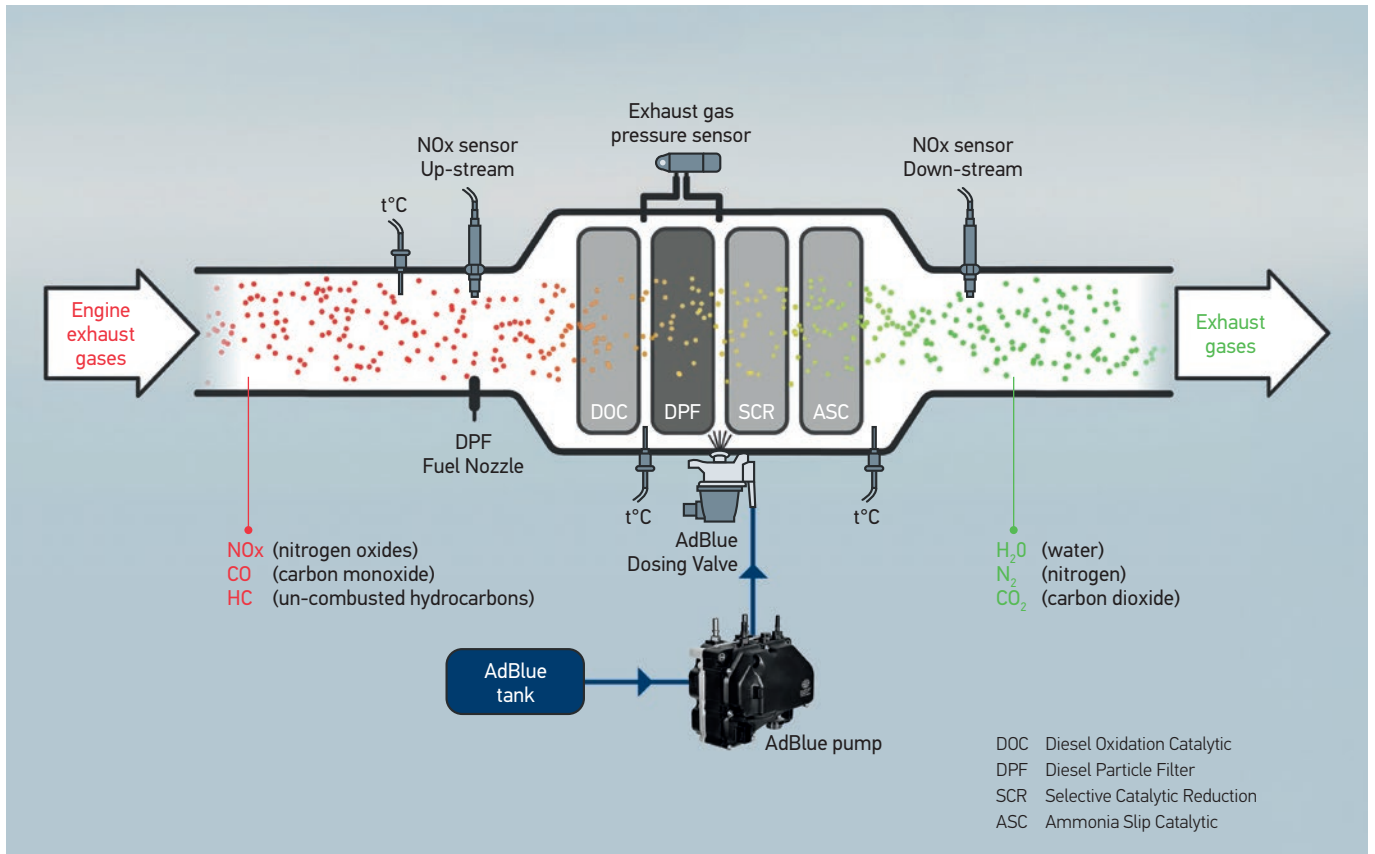
### Application

Applications for some of the major passenger and commercial vehicle manufacturers: DAF, Ford, Iveco, MAN, Mercedes Benz, Neoplan, Renault, Scania, Volvo.

### Installation

HELLA AdBlue pumps are specifically designed to meet the needs of both passenger cars and commercial vehicles, enabling quick and seamless integration into existing systems.

# FUNCTIONAL DIAGRAM



The AdBlue pump is a key component of the exhaust aftertreatment system, mounted on the chassis and powered by the vehicle's electrical system. Engineered for reliability and performance, it integrates an electric motor, a diaphragm-based pumping mechanism, a pressure sensor, and a heating element – all housed in a robust sealed unit. An integrated long-life filter ensures consistent urea flow throughout the product's lifespan.

This advanced dosing system delivers the AdBlue solution precisely and consistently, ensuring the optimum operation of the Selective Catalytic Reduction (SCR) process.

By maintaining a stable pressure across different operating conditions, the pump plays a pivotal role in:

- Reducing nitrogen oxide (NOx) emissions
- Enhancing fuel efficiency
- Supporting environmental sustainability goals

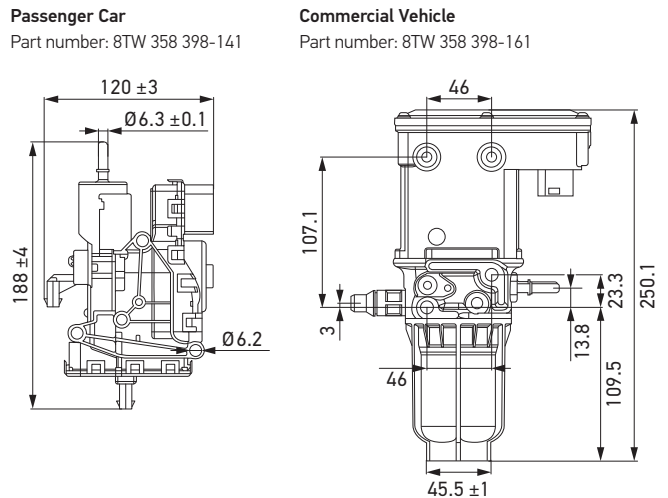
Through its innovative design and reliable performance, the HELLA AdBlue pump makes an important contribution to sustainable mobility solutions while ensuring compliance with the strictest emission standards.

# TECHNICAL DETAILS

## Technical data

Supply voltage	12 V and 24 V
Operating temperature	-40 °C to +85 °C
Max. operating pressure	12 bar
Vibration resistance	Yes
Installation location	Chassis

## Dimensional sketch



## PROGRAM OVERVIEW\*

Product Description	Application	Part number
Pump, Delivery Module (Urea Injection)	<b>Mercedes-Benz</b>   A0024704994, A0024706894	<b>8TW 358 398-141</b>
	<b>Ford</b>   BC3Z5L227K, BC3Z5L229L	<b>8TW 358 398-151</b>

Product Description	Application	Part number
Pump, Delivery Module (Urea Injection)	<b>Volvo</b>   22851845, 21574975, 85021151	<b>8TW 358 398-001</b>
	<b>Caterpillar</b>   398474700	<b>8TW 358 398-011</b>
	<b>Volvo</b>   21576178, 21335892, 21335897	<b>8TW 358 398-021</b>
	<b>Iveco</b>   504381868	<b>8TW 358 398-031</b>
	<b>Mercedes-Benz</b>   A0001400378, A0001400478, A0001400578, A0001400678, A0001402778, A0001404478, A0001401578	<b>8TW 358 398-031</b>
	<b>Volvo</b>   22851853, 21647139	<b>8TW 358 398-041</b>
	<b>New Holland</b>   47565934	<b>8TW 358 398-051</b>
	<b>Volvo</b>   21577511, 21577507, 21332695, 21332701, 85003865	<b>8TW 358 398-061</b>
	<b>Cummins</b>   2871879, A028Y792, A052B661, 12030174, 4387304, 4387657, 52014104AC, P52014104AC	<b>8TW 358 398-071</b>
	<b>Doosan</b>   30062800302	
	<b>John Deere</b>   RE552175	<b>8TW 358 398-081</b>
	<b>VW</b>   2T213113A	
	<b>Agrale</b>   6033001121007, 60525001071001	<b>8TW 358 398-091</b>
	<b>Cummins</b>   2871880, 2880158, 2T213113, 4387305, 4387658, A028Y793	
	<b>DAF</b>   1819797	<b>8TW 358 398-101</b>
	<b>John Deere</b>   17011521743, RE553796	
	<b>Volvo</b>   85020841	<b>8TW 358 398-111</b>
	<b>Caterpillar</b>   398474600	
	<b>Hino</b>   S17H0E0010, S17H0E0011, S17H0E0012	<b>8TW 358 398-121</b>
	<b>Isuzu</b>   8982688110	
	<b>DAF</b>   5273338, 1409391, 1705244, 4931694	<b>8TW 358 398-131</b>
	<b>VW</b>   2T2131113B, CC455H298AB	
	<b>Cummins</b>   A055E423	<b>8TW 358 398-141</b>
	<b>Scania</b>   2009872, 2057543, 2182737, 2655852, 13151615, 2695808, 2549339	
	<b>Mercedes-Benz</b>   A0001405578, A0001407278, A0001407978	<b>8TW 358 398-151</b>
	<b>MAN</b>   81154036150, 81154039150	
<b>VW</b>   2V3131113	<b>8TW 358 398-161</b>	
<b>Cummins</b>   A0546762		
<b>MAN</b>   51154036013	<b>8TW 358 398-171</b>	
<b>Mercedes-Benz</b>   A0001403978, A0001404678, A0001405078, A0001405378, A0001405478, A0001405778, A0001405978, A0001407178, A0001407878, A0001408178		
<b>Scania</b>   2963717, 2845277, CES-A063G808		

\* You can get an up-to-date overview of the product range in TecDoc or in your local catalogue.

# Q&A

## – AdBlue pump –



### 1 What is the role of an AdBlue pump?

The AdBlue pump is responsible for delivering AdBlue (urea solution) from the storage tank to the dosing valve. By maintaining consistent pressure to enable precise dosing, the system supports optimal performance of the vehicle's exhaust aftertreatment process, ensuring full compliance with today's stringent NOx emissions regulations.

### 2 Why do AdBlue pumps need to be replaced?

AdBlue Pumps operate in a challenging environment and are subject to wear from constant dosing cycles, vibrations, and temperature fluctuations, as well as having to deal with the special physical characteristics of the urea solution.

Over time, components such as seals, filters, and internal mechanisms can degrade. A malfunctioning pump leads to higher emissions, reduced SCR performance, and may trigger vehicle warning systems, which could in time lead to high-cost repairs.

### 3 What is the level of complexity involved in the installation process?

Thanks to its precision-engineered design and exact fit, the HELLA AdBlue pump enables a seamless integration into the vehicle system. This significantly simplifies the installation procedure, allowing technicians to complete the process quickly and efficiently.

### 4 What are the most common causes of complaints or returns?

The most frequent issues are related to improper installation or contaminated AdBlue solution. Following the mounting instructions and using high-quality AdBlue is essential to avoid failures.

### 5 What happens when driving with a faulty AdBlue pump?

After the fault is detected, the vehicle's ECU initiates a manufacturer-specific countdown in accordance with current emission regulations. This countdown gradually leads to a continuous decrease in engine torque and vehicle speed, allowing the driver enough time to reach a specialized service center and resolve the exhaust issue.