FANERGY XL

Mobile Large Fans

rosenbauer

Large fan FANERGY XL

The correct type for every application

Enormous thrust - the principle of pressure ventilation

In collaboration with the institute for combustion engines and thermodynamics of the Technical University of Graz, fire scenarios were simulated. In the process, it was possible to calculate the smoke gas spread and temperature development that occurs in the event of a fire and to analyse the influence of large mobile fans on flow conditions in the tunnel.

Jointly with the experiences of fire brigades, this simulation forms the basis for the design of the fans. Theoretical findings were finally confirmed in extensive tests.

Pressure ventilation in tunnels

In the case of fire in tunnels, smoke gases and heat development constitute a major hazard potential. On one hand, they threaten persons entrapped in the tunnel while the operating forces are hampered in advancing to the place of the accident. On the other hand, the spread of the gases is substantially influenced by flows caused through the chimney effect and weather-related influences. Often stationary ventilation plants can counteract these „natural“ flows only highly conditionally. The use of a large mobile fan in this case allows the operating forces to advance to the accident with „the wind in the back“ largely without danger.

Pressure ventilation in buildings

With the large mobile fans by Rosenbauer the operating forces have efficient fans for ventilation of large buildings at their disposal. By using positive pressure ventilation, smoke escape is accelerated and thus the safety of the operating forces increased.

The smoke escapes to the outside through opened windows or doors or deliberately through fire smoke vent openings, which means improved vision and thus quicker and safer arrival at the operating destination. In addition, ignition through passing smoke is reduced.

Large mobile fans - an ingenious product

The Rosenbauer large fans are designed as axial fans with curved blades and diffuser and are uncompromisingly configured for maximum axial thrust. As a result, the air flow can be intensified, established and even reversed depending on the operating tactics.

Through the air flow generated in the fan, a positive pressure is created in the tunnel or in the building which allows the smoke caused by the fire to escape through the other tunnel end or targeted smoke discharge openings. Moreover a clear reduction of temperature appears in the fire room, which facilitates increased usage times at the fire fighting forces.

Rosenbauer offers its large mobile fans in 2 sizes with 3 types.

The FANERGY XL35 is a fan with an axial thrust of 1,000 N directly driven by means of a BMW engine. As standard, it is mounted on a single-axle trailer with overrunning brake and can be towed by a passenger car.

The FANERGY XL63 with its 2,500 N axial thrust offers the maximum output for large scale operations. In addition to being mounted on a two-axle trailer with overrunning brake, it can also be permanently mounted on a vehicle or on an interchangeable loading frame.

The main difference between the Types XL63 and XL63 S is the hydraulic drive unit for the fan XL63 S and thus the possibility of rotating and inclining the fan unit. Through the mechanical separation of drive unit and fan the fan can be rotated via a slewing ring and inclined via a lifting cylinder. This allows highly flexible adjustment of the air flow direction and the operating possibilities are substantially increased. In addition, the fan can be optimally adapted in height to the place of operation through a scissor lift table.

Simple operation

All 3 fans are characterized by simple operation. Following start-up, the fan does not require any further attention.