

GRUNDFOS FIRE PROTECTION SYSTEMS

Grundfos is a full-line fire system supplier that fully complies with a globally recognised list of approvals and listings. We design, manufacture and service our fire pump systems all over the world, and our products are renowned for their quality, high performance and reliability.

Grundfos application areas:

- Industrial plants
- Public water supply
- District cooling / heating plants
- Air-con / heating systems
- Fire protection
- Cooling systems
- Irrigation

GRUNDFOS FIRE PROTECTION SYSTEMS FULL RANGE EXPERTISE

FIRE PUMPS FOR VDS, CNBOP, OKF AND PAVUS



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GRUNDFOS 

BE > THINK > INNOVATE >

GRUNDFOS 

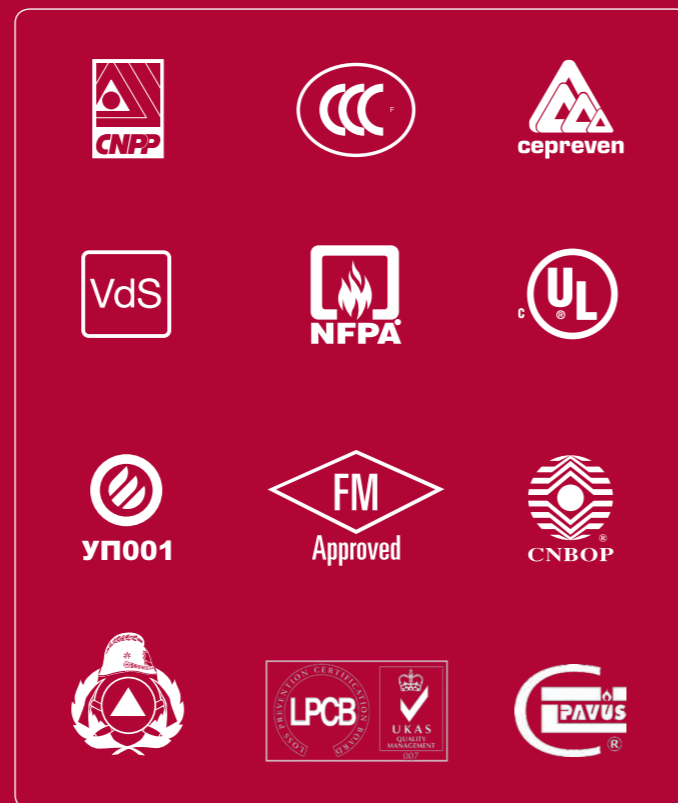
FIRE PROTECTION SYSTEMS

INTRODUCTION

GRUNDFOS FIRE PUMPS SUPPLY HIGH-CLASS SAFETY TO CLIENTS AROUND THE WORLD. OUR EXPERTISE SPANS THE GLOBE AND COVERS FIRE SYSTEMS WITH VDS, CNBOP, OKF AND PAVUS APPROVED FIRE PUMPS

With Grundfos as your fire system supplier, you can rest assured that your system lives up to the highest international standards of quality. We have products that comply with your every need and the following approvals:

- PSB
- VNIIPO
- CCCF
- APSAD
- CEPREVEN
- VdS
- UNI
- LPCB
- EN 12845
- CNBOP
- OKF
- PAVUS
- FM
- UL
- NFPA 20



WE HAVE EXPANDED OUR COMPETENCIES

Two experts for the price of one

Grundfos is a proud company with an extensive history of pump manufacturing and innovation. In order to further develop our expertise within fire systems, we've recently acquired another proud company with a famous 100-year history in the fire pump industry – the American pump icon, Peerless.

Peerless has extensive experience with fire pumps of the NFPA 20 standard and FM-UL approved systems. It is also a company that shares the Grundfos values of superior quality products, strong customer focus, and an in-depth understanding of the realities of fire protection.



Global presence

Grundfos secures efficient and direct deliveries to the construction sites of all our European customers, and with a sales and service centre in every market, Grundfos is never far away. Our competence centre

in Wahlstedt, Germany, is at the heart of fire competence in Europe. Here we manufacture and test VdS, CNBOP, OKF, PAVUS and FM approved systems. Comprehensive on-site design, testing and a full range of customer training facilities are also provided.

SERVICE AND EXPERTISE
We cover the world



FIRE PROTECTION SYSTEMS

VERSATILITY

RELIABILITY ACROSS THE FULL RANGE

Full-line supplier

Grundfos produces fire pump systems for:

- Fire hose reels
- Fire hydrants
- Fire sprinklers

We design and build systems ranging from simple pump-driver systems on a base frame to highly engineered and fully enclosed, packaged systems. We are proud to have the widest range of fire pump approvals and listings worldwide, and our expertise enables us to engineer, produce, stock, distribute and service our products all over the world.

There are three main reasons for choosing fire pumps that are approved and certified by accredited third party authorities. Firstly, based on the massive experience embodied in leading fire protection, regulations and codes, approved systems reduce the risk of damage to life and property in the case of fire.

Secondly, approved systems provide maximum reliability and superior quality. Thirdly, using approved and listed fire pumps typically reduces insurance rates significantly.

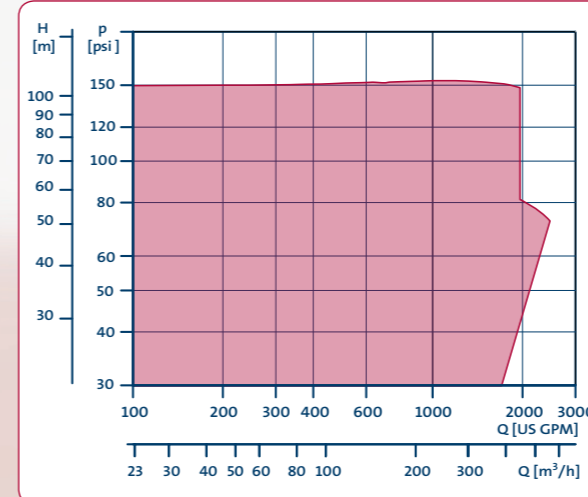
When third party approval is not required for a fire pump installation, Grundfos can supply non-listed fire systems that comply with specific fire standards.

SUPREME PERFORMANCE APPROVED BY VDS, CNBOP, OKF AND PAVUS

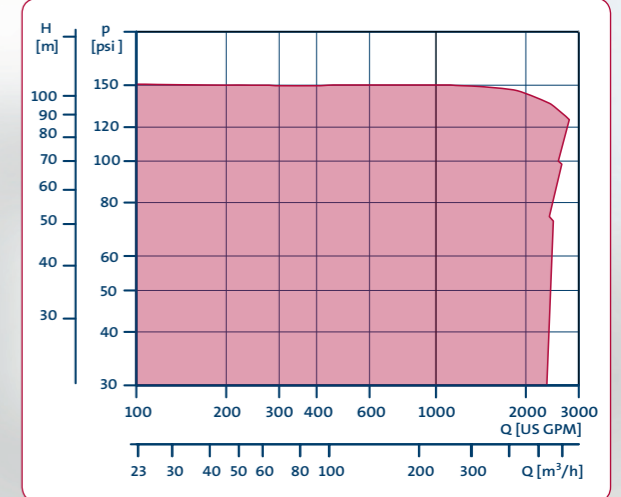
Grundfos provides top performance electric and diesel systems with all the relevant listings and approvals. Our European regional competence centre for fire pumps in Wahlstedt, produces approved fire pump

systems that are certified by Vds, CNBOP, OKF and PAVUS. The systems can be supplied as either electric or diesel. See the standard performance range of our electric and diesel pumps below.

Performance range of electric fire pumps 50 Hz



Performance range of diesel fire pumps



Electric fire pump units are built in three different configurations:

Basic: Fire pump and electrical motor mounted on base frame.

Compact: Fire pump and electric motor – complete system mounted on one base including wiring and control panel.

Flex: Fire pump and electric motor mounted on base and control panel separately supplied for wall or floor mounting.

Diesel fire pump units are built in the following configuration:

Compact model: Complete diesel fire pump unit including fire pump, diesel engine, fuel tank, batteries and control panel on one base frame. All wiring and connections are pre-made, and the complete, assembled unit is pretested in our factory to ensure supreme functionality and performance.



ELECTRIC FIRE PUMP – IN COMPLIANCE WITH VDS, CNBOP, OKF AND PAVUS

Fire pump

- Certified end suction pump in compliance with Vds 2344
- Factory performance- and hydrostatic tested
- Mechanically and hydraulically balanced for low vibration operation
- Designed for highest efficiency, easy maintenance and simple service.
- Quick delivery pump program
- With standard DIN flanges

Anti corrosion surface

- Coated with protective primer
- Spray painted with red, two-component paint RAL 3000

Coupling and guard

Flexible Standard pin coupling from Grundfos

- Maximum operational reliability (fail safe) with the flexible pin coupling design
- Prevents shaft stress by compensating for shaft misalignment
- Optional spacer coupling on demand
- Guard in sheet metal to ensure personnel safety

Electric-motor

- Power safety factor and reliability
- Highly reliable Grundfos IEC motors efficiency 1
- Optional motor brands on demand.

The base frame is:

- Welded and has a rigid design to ensure easy alignment on site for driver, fire-pump and controller (optional)
- Standard non drip frame (open) and lifting points for easy transportation
- Painted in red RAL 3000 paint

Electric Fire Pump Controller

- Vds certified controllers in compliance with Vds 2344 and with CE-mark as standard.
- Standard IP 54 enclosure in red colour RAL 3000
- Starting by Star Delta
- Controller versions with or without phase monitoring

Options

- Compressor that supplies air to pressure tank
- Jockey pump for water supply to pressure tank
- Pressure maintaining pump for pipe system (Jockey pump)
- Level indication in pressure tank by rod electrode or float switch
- Electric valve pressure/suction side

DIESEL FIRE PUMP – IN COMPLIANCE WITH VDS, CNBOP, OKF AND PAVUS

Fire pump

- Certified end suction pumps in compliance with Vds 2344
- Factory performance- and hydrostatic tested
- Mechanically and hydraulically balanced for low vibration operation
- Designed for highest efficiency, easy maintenance and simple service.
- Quick delivery pump program
- With standard DIN flanges

Anti corrosion surface

- Coated with protective primer
- Spray painted with red, two-component paint RAL 3000

Coupling and guard

Coupling

- Flexible, maintenance-free coupling from Centaflex that allows shaft movement in axial, radial and angular directions.

Guard

- Ensures personnel safety, easy to adjust and dismount.

Fuel tank

- Fuel tank designed and sized in compliance with Vds requirements and with a robust fuel level indicator.

Diesel engine fire pump controller

- Vds certified controllers in compliance with Vds 2344 and with CE – mark as standard
- Standard IP 54 enclosure

Battery sets

- Two independent 24 V lead-acid battery sets ensure redundant power supply for starting the engine
- Charged by independent, continuously connected, fully automatic, constant potential chargers.

Options

- Nickel cadmium batteries
- GEL batteries

The base frame is

- Welded and has rigid design to ensure simple alignment on site for the driver, fire-pump and controller
- Standard design with drip rim base (closed) and lifting points for easy transportation
- Painted in red RAL 3000

Power safety factor and high reliability

- John Deere diesel engine set sized, built and assembled in compliance with Vds requirements.
- Thoroughly tested at our test bed facility to ensure correct performance.
- Cooled by a heat exchanger to ensure proper operation
- Industrial silencer

Options

- Residential silencer
- Other engine brands



FIRE PROTECTION SYSTEMS

CUSTOMISED SOLUTIONS

BEYOND STANDARD PRODUCTS

At Grundfos, we have always considered a complex project a great challenge. That is why we offer completely customised solutions that match the requirements of even the most complicated tasks.

A range of models

Grundfos delivers VdS end suction pumps as well as a range of other listed fire pumps in compliance with different fire pump standards. Our product range includes:

- Vertical Multistage Centrifugal fire pumps
- Split Case fire pumps
- In-Line fire pumps
- Our quick-delivery FM fire pump

Modularised systems

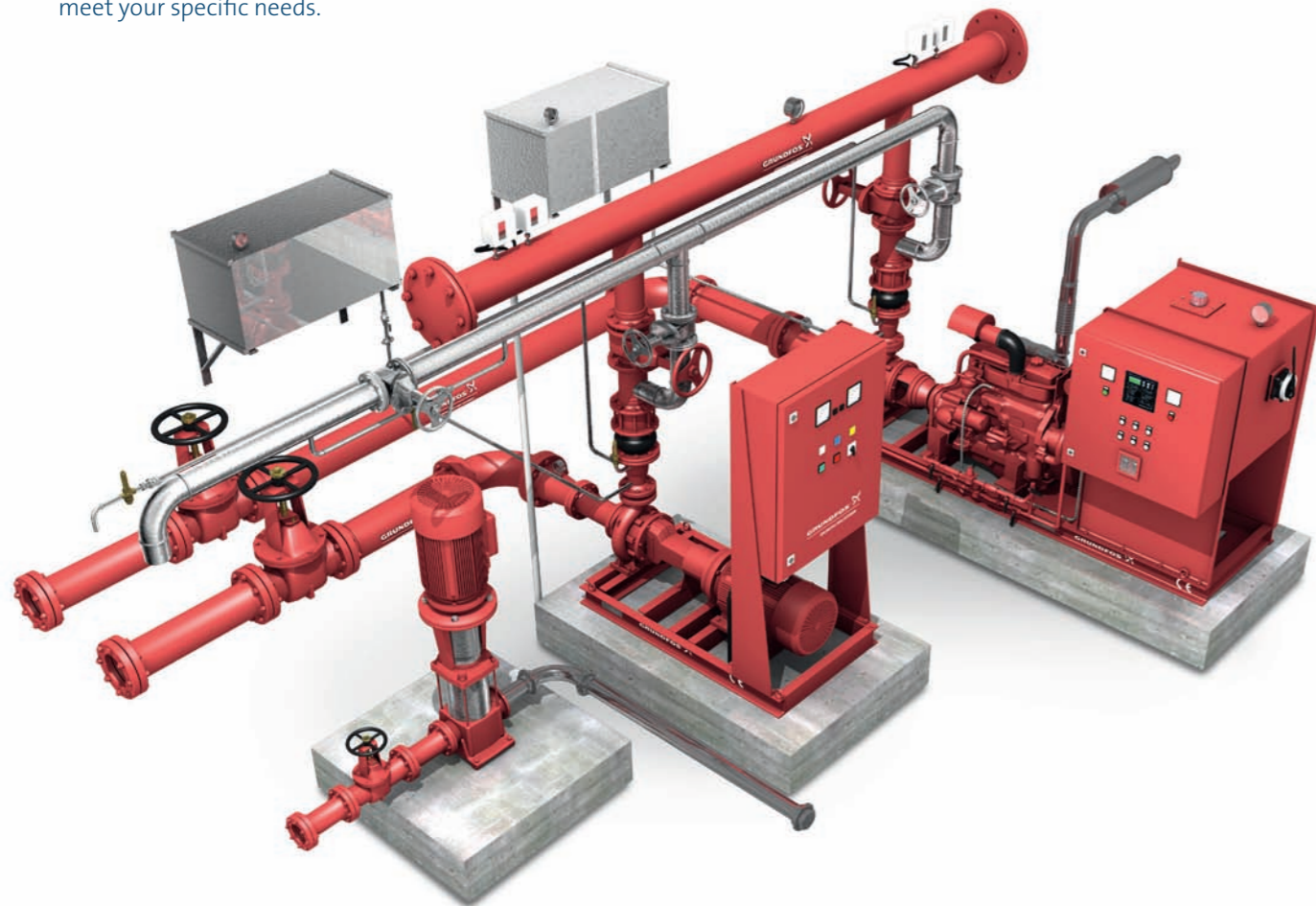
Grundfos designs and builds customised systems that meet your specific needs.

We mount the fire pump, driver, controller and piping with complete interconnected wiring on a common base or a modularised base frame for final assembly on location.

Packaged / containerised systems

With Grundfos' enclosed systems, your installation-to-operation time is minimal. Our enclosed systems are typically built as an integrated pump and control centre with:

- Diesel engine
- All the required controllers
- In-house piping
- Fittings
- Interconnected wiring
- A complete installation that meets the requirements of VdS, CNBOP and OKF



CASE REFERENCES

European projects with Grundfos FM fire systems

Project Name	Location	Country	Application	Equipment
IKEA	Odense	Denmark	Warehouse	Diesel + 2 Electric end suction
NEF	Birkerød	Denmark	Stock (Lagerhotel)	2 x Diesel end suction
Hauptverwaltung Stadtwerke Essen AG	Essen	Germany	Main administration	Electric end-suction
ALBA Schwarzwald GmbH	Dunningen	Germany	Waste management production	Electric end-suction
Gartencenter Pötscke OHG	Schwerte	Germany	Garden centre	Electric end-suction
Airport Garden's	Düsseldorf	Germany	Office complex	Electric end-suction
Decathlon Piaseczno	Warsaw	Poland	Sport store	Diesel end suction
Bonarka	Krakow	Poland	Shopping centre	Diesel + Electric end suction
Hala Widowiskowa	Gdansk	Poland	Sport & show arena	4 electric sets, end suction
BioVenta	Ventspils	Latvia	Biofuel production factory	Diesel + Electric end suction
Cemex Latvia	Brocēni	Latvia	Cement production factory	Diesel + Electric end suction
Aigas Nami	Riga	Latvia	Office and warehouse complex	Diesel + Electric end suction
Reval Hotels	Kaunas	Lithuania	Hotel	Electrical + Electric end suction

Kaunas Railway Tunnel

The Kaunas railway tunnel was originally constructed in 1862 and was the first railway tunnel in the Baltic. It is listed as a cultural and technical heritage of Lithuania and in 2009 the tunnel was fully renovated in a project partly funded by EU and managed by Lithuanian Railways.

Grundfos was chosen as the pump supplier on the prestigious project because of our superior technical solutions and quality products. Contractors chose VdS fire-pumps because of their well-recognized sprinkler system requirements and esteemed certification body.

Fire pumps installed:

- 1 x Diesel driven VdS fire pump JU4H-NL34 , 96 kW, 2960 rpm. with an end-suction pump Fire NKF 80-250/255
- 1 x Electrically driven VdS fire pump Grundfos IEC motor 75 kW, with an end-suction pump Fire NKF 80-250/255
- 1 x Jockey pump CR3-23



FIRE PROTECTION SYSTEMS

CUSTOMER SUPPORT

FULL-LINE INCLUDES THE SUPPORT AS WELL

Grundfos service is not limited to delivering a product. We are there all the way from design, installation, maintenance and training.

We provide commissioning, annual service agreements, after sales support and continuous monitoring of your installation for compliance (GRM).



EXPERTISE AT THE HEART OF EUROPE

Grundfos Wahlstedt – the European competence centre

The Grundfos fire competence centre located in the northern part of Germany, sets the scene for a collection of activities that all promote the technology, production and knowledge behind great fire protection systems.

The Wahlstedt centre features:

- Production, assembly, and test facilities approved by FM and VdS
- Quality accreditations such as ISO 9001, 14001, 18001, and EMAS
- Witness tests where customers can supervise the testing of their products
- Stock facilities for pumps, motors, engine units, and control panels
- Customer support facilities for applications, system design, logistics, sales and service