

VN - Pumpen

Tailor - made aggregates and more

Fire extinguishing units



Industry pump - aggregates

Marine pumps and equipment



Pumps

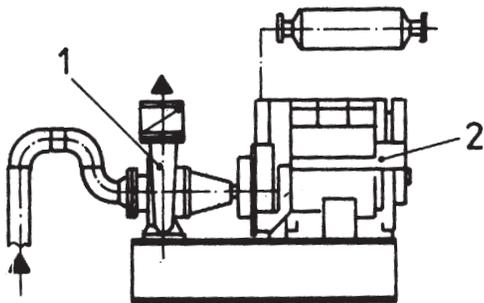
Equipment



Valves, Instruments, Supervision

Stationary or transportable fire-extinguishing units for marine and land-application

Self priming / direct coupled



We deliver the pump (1):

- with built-in priming stage or
- with separate evacuating unit for manual operation or remote start

We deliver the diesel engine (2):

- air- or water-cooled with radiator, water-cooled with heat-exchanger
- with 2nd starting equipments acc. to the rules of classifications for emergency fire-units with following starting possibilities
- manual – spring – electric – pneumatic – hydraulic – starters

Alternative:

- with electromotor 400 V / 50 Hz or 440 V / 60 Hz
- d.o.l. or star-delta starting



Diesel-driven centrifugal pumps with 3-cylinder Deutz-engine with separate evacuating device with clutch for manual operation

High-pressure self-priming multistage centrifugal pumps with Perkins diesel engine



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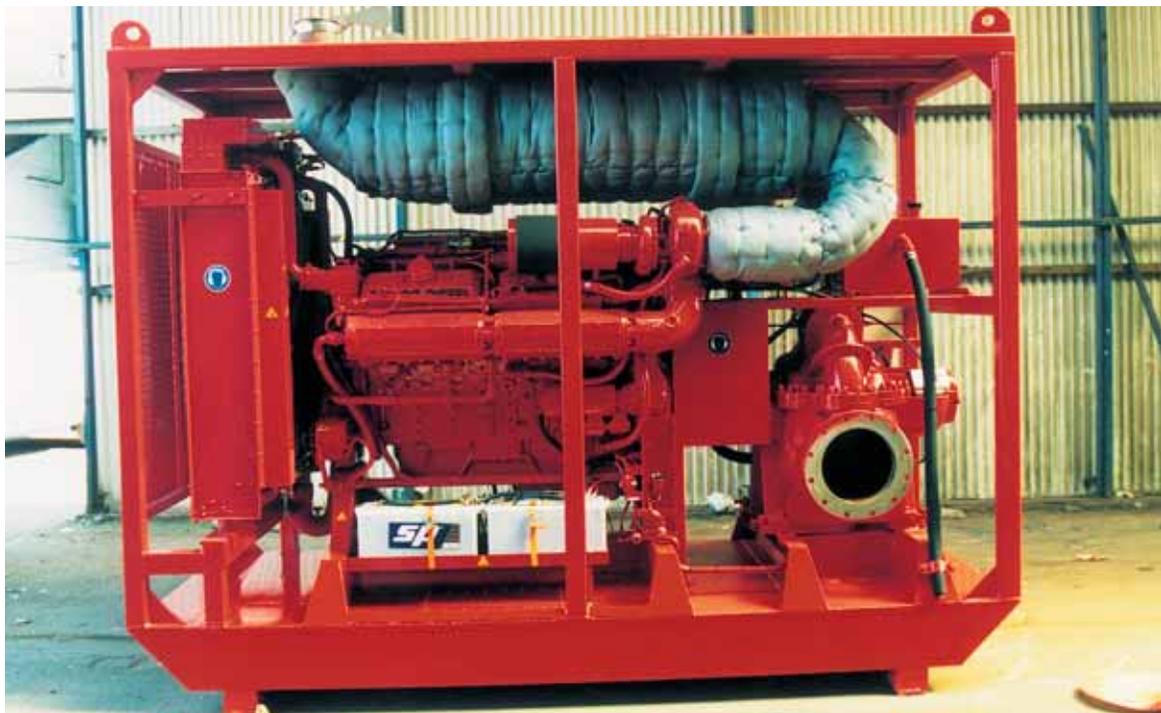
Fire-extinguishing units

1

Stationary or transportable fire-extinguishing units for marine and land-application

Portable diesel driven fire pump with exhaust gas ejector, self-priming and self-draining.

No water filling before start, no blocking or ruptures because of frost



Fire extinguishing pump-unit diesel driven with selfpriming device 1200 m³/h - 12 bar

2

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Fire-extinguishing units

Stationary or transportable fire-extinguishing units for marine and land-application

1



Pump capacity 12000 l/min at 13 bar



Starting of engine by hydraulic accumulator



Evacuating system with high capacity (evacuating time can be less than 1 minute) pump made of bronze, operating by hand lever to disk clutch



Easily operated monitor manually, electrically or hydraulically operated with possibility of manual operation in case of emergency

VN-Pumpen designed and developed transportable fire extinguishing units for various applications and a wide range of capacities from 100 up to 1200 m³/h and pressure up to 16 bar.

3

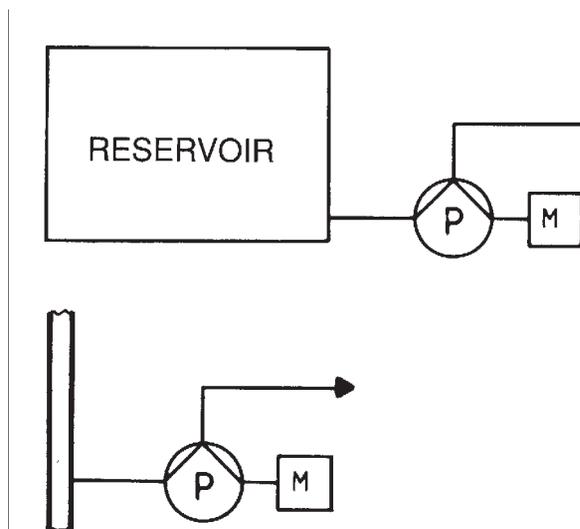
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Fire-extinguishing units

1

Stationary or transportable fire-extinguishing units for marine and land-application, direct coupled.

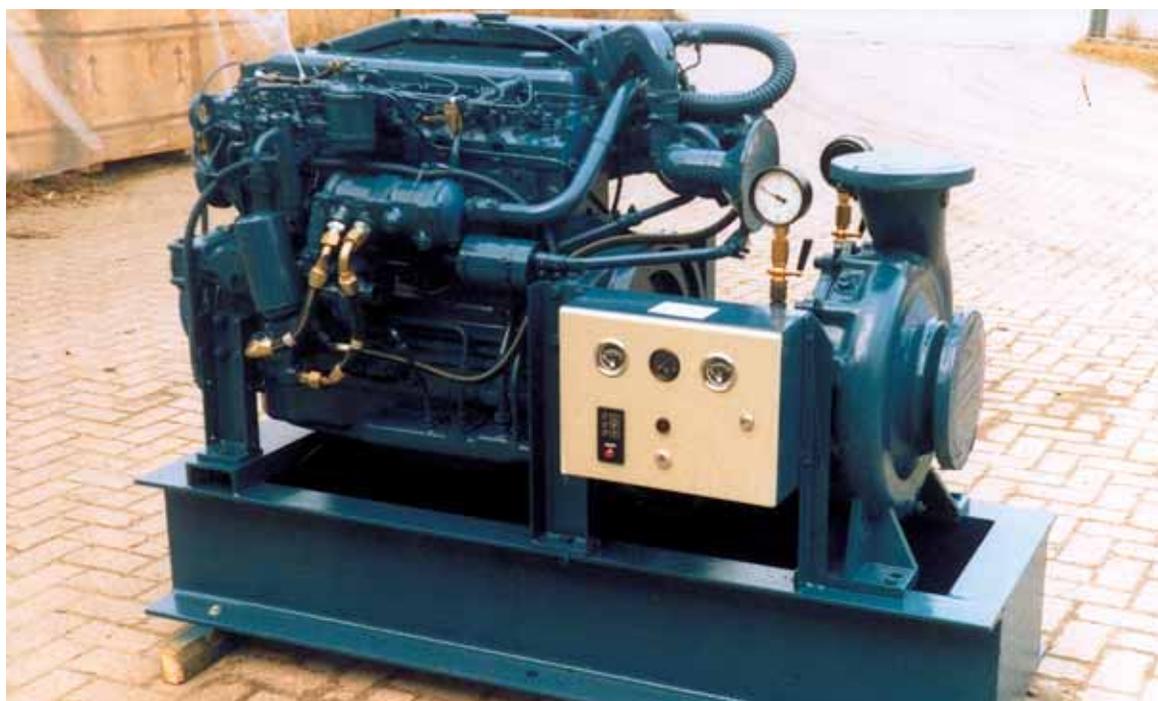
Flooded pumps / nonself-priming



In case of supply from the Public Water Pipeline the inlet pressure can be taken into account when calculating the end-pressure



Compact booster pump unit for fire extinguishing use



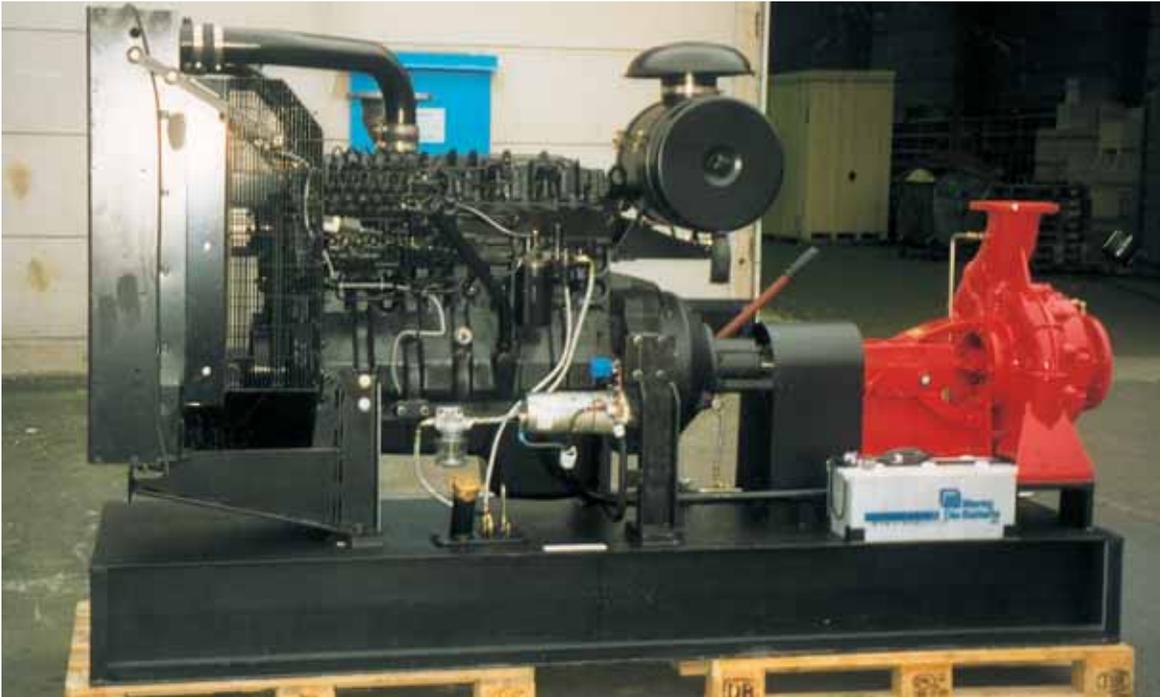
Perkins Marine diesel engine with heat-exchanger, pump 180 m³/h – 90 m, with LROS certificate

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Fire-extinguishing units

Stationary or transportable fire-extinguishing units for marine and land-application, direct coupled.

1



FiFi-pump 300 m³/h – 55 m with 6-cylinder diesel engine radiator cooled



Axial split case pump with diesel engine installed in container

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Fire-extinguishing units

1

Stationary or transportable fire-extinguishing units for marine and land-application, direct coupled.



Stationary marine design with Scan engine, pump made of NiAl-bronze 360 m³/h – 140 m



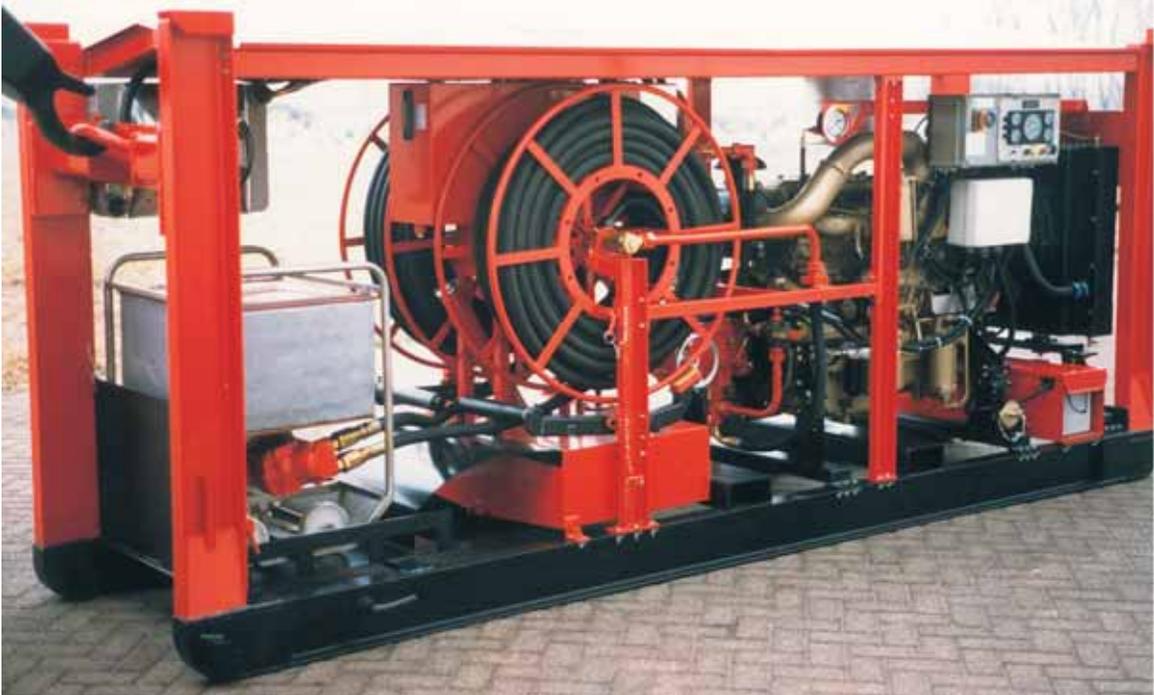
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Fire-extinguishing units

Stationary or transportable fire-extinguishing units for marine and land-application, direct coupled.

1



Transportable unit special design for operation in industry area



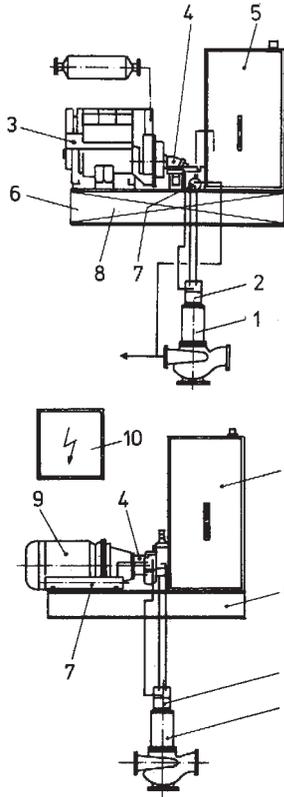
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Fire-extinguishing units

1

Self priming hydraulic fire extinguishing system with big suction lift



diesel driven

lower unit:

centrifugal pump (1) coupled with hydraulic motor (2). Standard submerged design wet well installation centrifugal pump horizontal or vertical, normal suction or self priming with built-in air-stage depending on installation level.

upper unit:

as compact-unit. With diesel engine (3) air- or water-cooled with radiator, for remote and direct start and possible with secondary starting equipment.

Diesel engine ready assembled with hydraulic pump (4) and necessary fittings. The hydraulic tank (5) on the same base frame (6). Cooling of hydraulic oil with air- or seawater cooler (7). Fuel tank (8) in the base frame.

Electrically driven

as described above, but upper unit driven by means of electric-motor (9) with switchboard (10).



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Fire-extinguishing units

Self priming hydraulic fire extinguishing system with big suction lift

1



Feeder / booster-pump design:

To save energy or to make the lower unit not too heavy the lower unit will be used only as feeder pump and the upper unit will be equipped with booster pump.



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Fire-extinguishing units

1

Self priming hydraulic fire extinguishing system with big suction lift

Several designs of submersible pumps hydraulically driven



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Fire-extinguishing units

Self priming diesel driven hydraulic fire extinguishing system with big suction lift

1



Hydraulically driven submersible pump floating design



Hydraulically driven power package for submersible pump

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Fire-extinguishing units

1

Self priming diesel driven hydraulic fire extinguishing system with big suction lift



Electrically driven hydraulic power package



Hydraulically driven mobile power package with floating submersible pump



Diesel driven hydraulic power package

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Fire-extinguishing units

Self priming diesel driven hydraulic fire extinguishing system with big suction lift

1



Containerized fire-fighting unit installed at a pier in the harbour
The water is taken from the river by means of a hydraulically driven submersible pump.
The station transfers the water into a ring pipeline



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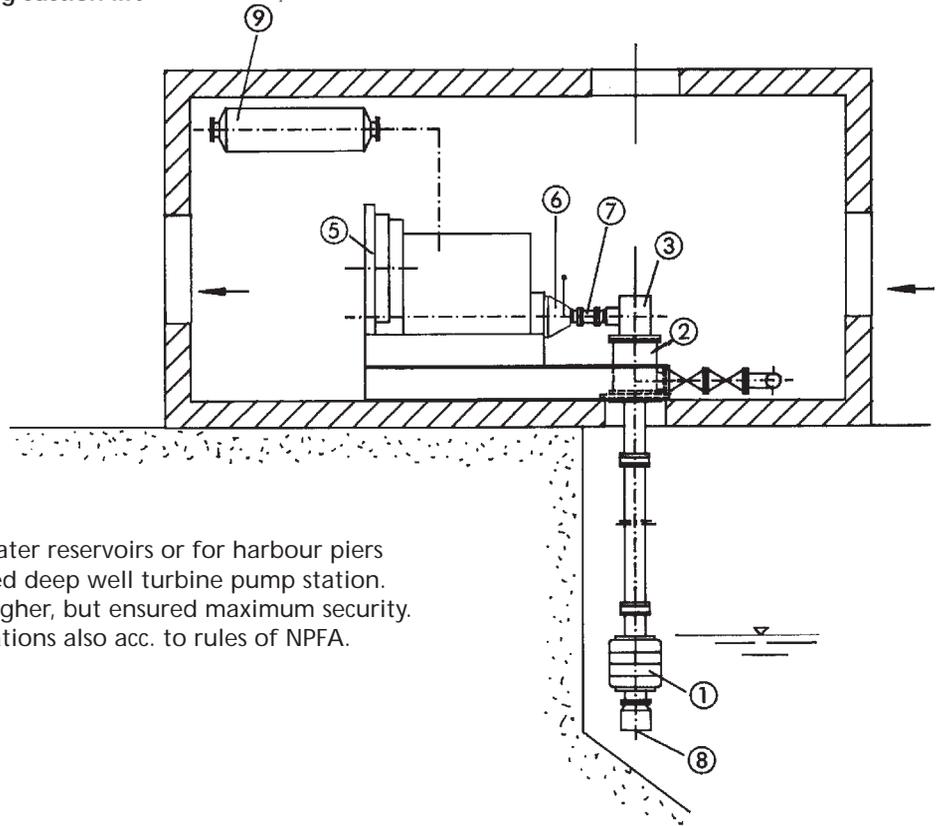
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Fire-extinguishing units

1

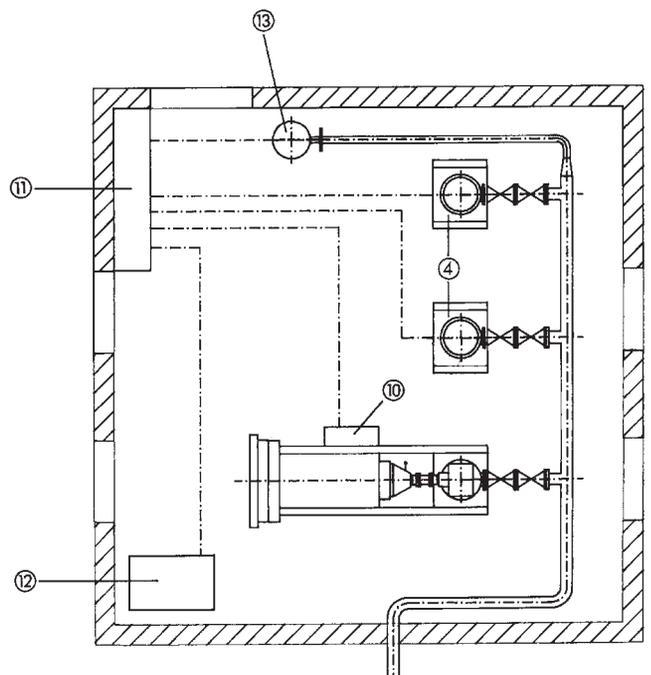
Fire extinguishing pumping sets with deep well turbine pumps

Self priming with big suction lift



For underground water reservoirs or for harbour piers mostly recommended deep well turbine pump station. The investment is higher, but ensured maximum security. We deliver these stations also acc. to rules of NPFA.

- 1) Deep well turbine pump
- 2) Pump head
- 3) Gearbox
- 4) 2 electrically driven pumps
- 5) Diesel engine with radiator
- 6) Clutch, automatic for remote start
- 7) Spacer coupling
- 8) Foot valve
- 9) Exhaust silencer with spark arrester
- 10) Battery
- 11) Switchboard
- 12) Fuel tank with low level alarm
- 13) Diaphragm pressure tank



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Fire-extinguishing units

Fire extinguishing pumping sets with deep well turbine pumps

1



We deliver, if required, with clutch for automatic remote operation with emergency manual operation

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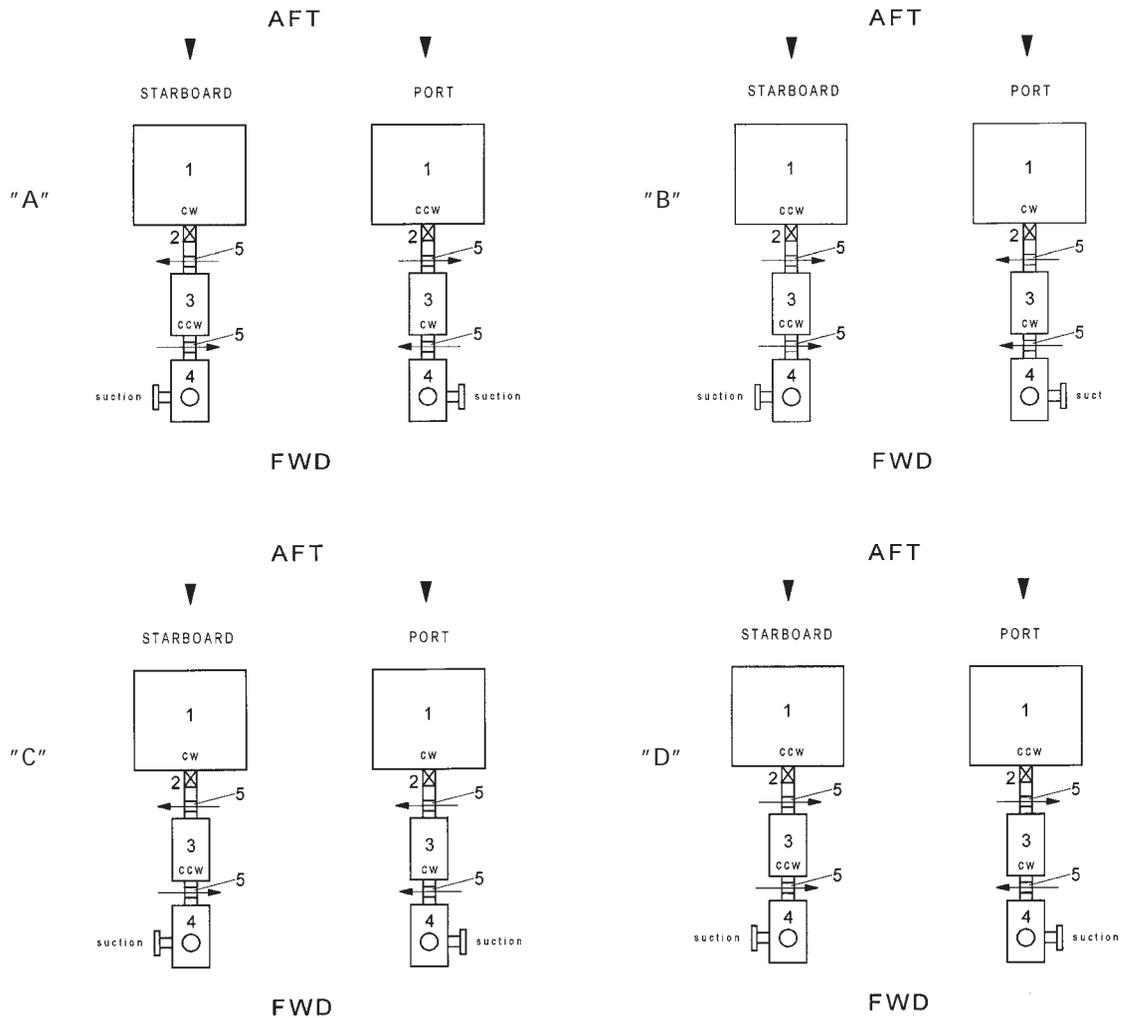
Fire-extinguishing units

1

Marine fire extinguishing pumping sets with step-up gearbox and clutch for PTO of main engines

We are able to deliver for several directions of rotations and positions of suction- and discharge sockets.

all directions of rotations seen from diesel engine to pump



- 1) main engine
- 2) PTO of main engine
- 3) step-up regular
- 4) firepump (upwards pointed discharge socket)
- 5) couplings

Fire pump can be delivered with a sideways pointed suction socket and an upwards pointed discharge socket as illustrated above design "A", "B", "C", "D"

The fire pump can also be delivered in **inline design**, that means with the suction socket on the right, left or on the bottom, the discharge side is always on the opposite.

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Fire-extinguishing units

Marine fire extinguishing pumping sets with step-up gearbox and clutch for PTO of main engines

1



Capacity up to 3600 m³/h
Pressure up to 20 bar

Approval and certification of all
marine classifications (e.g. ABS,
BV, CCS, DNV, GL, LROS, MROS, Rina)



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Fire-extinguishing units

1

Special containerized fire extinguishing unit



Because the capacity of the available crane on the supply vessel was too small, part of the machinery equipment can be withdrawn as you can see from following photos.



In the container remains the cooling system and fuel tank for 24 hours

Special containerized fire extinguishing unit

1



The unit during a 24-hour test program (pump 1200 m³/h - 16 bar)



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Fire-extinguishing units

1

Special containerized fire extinguishing unit



The unit at site, also for ice-production in Caspian sea