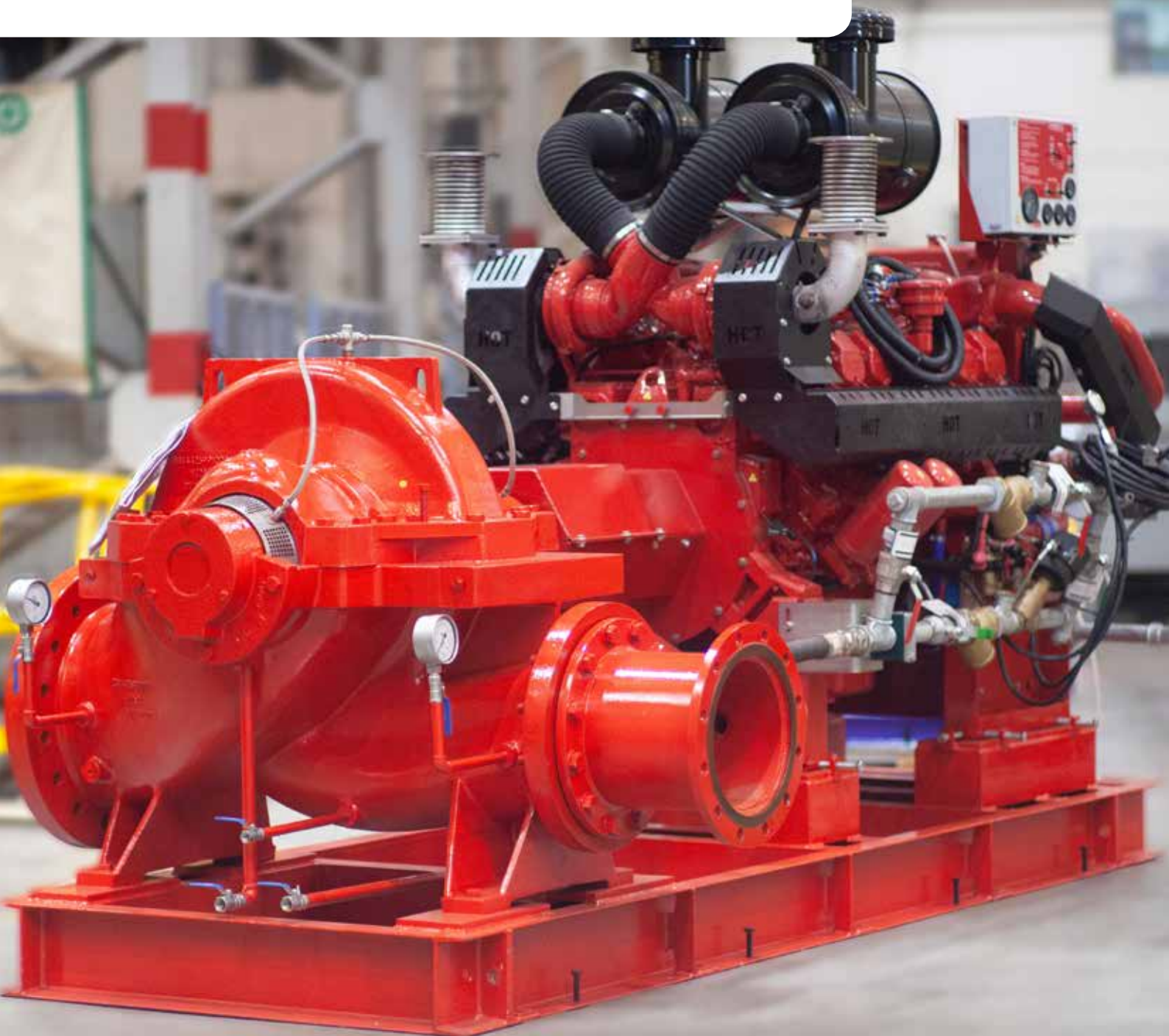


## **KSB Fire-fighting pump**

**Safe & reliable fire protection system**







## Fire protection – KSB's safe and reliable Fire-fighting systems

Drawing on experience and specialist knowledge in fire protection, we are fully familiar with the standards, regulations and certifications in this field. KSB provides pumps and system solutions meeting a vast number of national standards and certifications.

At KSB Indonesia, we not only provide our customers with pumps and valves but also all other equipment forming part of a fixed system for fire-fighting. We offer the necessary sprinkler pumps, pressure booster systems and all-in solutions from a single source. This shows once more that KSB can provide both customengineered solutions and standard systems.

# KSB Fire pump product portfolio

## End suction

Pump type	Certification	Capacity (usgpm)	Head (psi)	Speed (rpm)
Etanorm FXM (KSB Germany)	UL & FM	500 - 1500	81 - 200	2950
Meganorm (KSB Brazil)	FM	500 - 2000	110 - 193	1780
ES (Armstrong-Canada)	UL	250 - 1750	41 - 222	1780 - 3000
ES (Armstrong-Canada)	UL & FM	250 - 1750	41 - 222	1780 - 3000
ESF (NM Fire-China)	UL & FM	50 - 750	69 - 157	2980 - 3550

## Horizontal split case

Pump type	Certification	Capacity (usgpm)	Head (psi)	Speed (rpm)
Omega FXF (KSB Germany)	UL & FM	2000 - 3500	71 - 226	1480 - 2950
Omega, RDL (KSB Brazil)	FM	750 - 2500	82 - 215	1450 - 1760
RDL (KSB Argentina)	UL	500 - 3250	45 - 210	1450 - 2900
RDL (KSB Argentina)	UL & FM	500 - 3250	45 - 210	1450 - 2900
HSC (Armstrong-Canada)	UL	500 - 3000	40 - 293	1480 - 3560
HSC (Armstrong-Canada)	UL & FM	500 - 3000	40 - 293	1480 - 3560
SCF (NM Fire-China)	UL	300 - 8000	79 - 485	1480 - 3550

## Vertical turbine

Pump type	Certification	Capacity (usgpm)	Head (psi)	Speed (rpm)
B-Pump (KSB Brazil)	FM	1000 - 4000	133 - 221	1780
VTP (NM Fire-China)	UL	100 - 6000	40 - 361	1480 - 2900

# KSB Fire pump product

## Omega / RDLO


**Technical data:**

Flow rate: up to 44.000 USGPM  
Head: up to 240 m  
Temperature: up to 80 °C

**Construction:**

Horizontal split case pump with radial flow impeller

## Omega FXF


**Technical data:**

Flow rate: up to 3,500 USGPM  
Head: up to 158 m  
Cert: FM, UL


**Construction:**

Horizontal split case pump with radial flow impeller

**Fluids handled:**

Fire-fighting water  
No aggressive, abrasive or solid substances

**Main applications:**

Sprinkler systems to FM Approval Standard

## Movitec


**Technical data:**

Flow rate: up to 490 USGPM  
Head: up to 249 m  
Temperature: up to 120 °C  
Discharge press: up to 40 bar  
Speed: up to 3.600 rpm

**Construction:**

Multi-stage, vertical inline high-pressure centrifugal pumps in ring-section design.

## Multitec


**Technical data:**

Flow rate: up to 6.600 USGPM  
Head: up to 1.000 m  
Temperature: up to 200 °C

**Construction:**

Horizontal Multistage pump  
High pressure pump in ring section design

## Etanorm FXM (UL/FM)


**Technical data:**

Flow rate: up to 1500 USGPM  
Head: up to 140 m  
Temperature: up to 140 °C  
Cert: FM, UL


**Construction:**

Handling clean fluids which are neither chemically nor mechanically aggressive to the pump materials.  
Sprinkler systems to FM 3-7, NFPA 20

**Vertical Turbine**



**Technical data:**  
 Flow rate: up to 11.400 USGPM  
 Head: up to 250 m  
 Cert: FM, UL



**Construction:**  
 B Pump Vertical Turbine Pump

**Amstrong (listed UL)**



**Technical data:**  
 ES end suction: 250 – 1750  
 Head: up to 150 m  
 HSC: 500 – 3000 usgpm, h up to 200 m  
 Cert: FM, UL



**Construction:**  
 Horizontal, end suction, centrifugal, design fitted with single stage radial impeller.

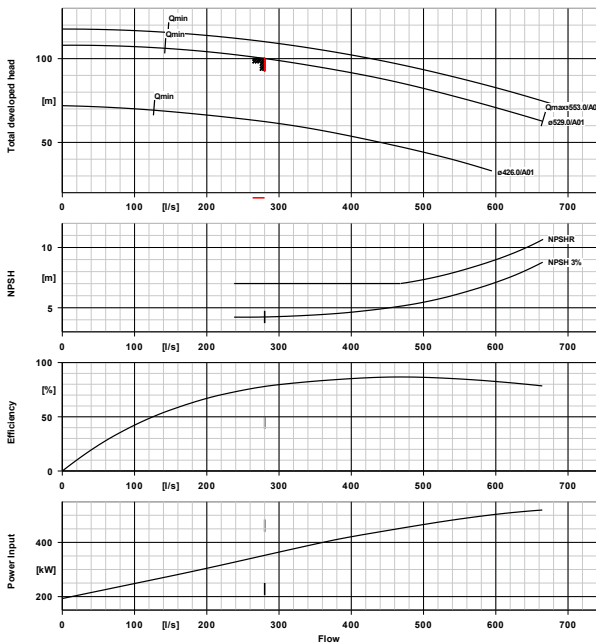
**NM Fire (listed UL)**



**Technical data:**  
 SCF (split): 300 – 8000, h up to 330 m  
 ESF (end suction): 50 – 750, up to 110 m  
 VTP (vertical Pump): 100-6000, up to 250

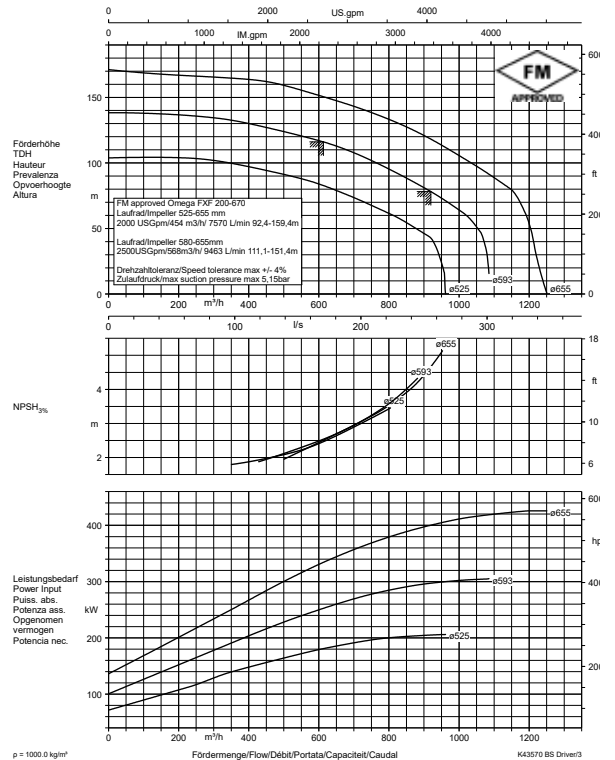
**Construction:**  
 Horizontal split case pump with radial flow impeller

**KSB Fire pump performance curve**



**Curve data**

Speed of rotation	1470 rpm	Efficiency	78.0 %
Fluid density	998 kg/m <sup>3</sup>	Power absorbed	352.35 kW
Viscosity	1.00 mm <sup>2</sup> /s	NPSH required	7.01 m
Flow rate	280.000 l/s	NPSH req. 3%	4.24 m
Requested flow rate	280.000 l/s	Curve number	K42799/1
Total developed head	100.00 m	Effective impeller diameter	529.0 mm
Requested developed head	100.00 m	Acceptance standard	tolerances to ISO 9906 2B





## KSB Fire-fighting pump project references

Plant Type	Products and Specification	Years
UNIBRAW - Fire Pump Package	Electric Fire Pump - B14B 5VN/V1 with 132kW/4pole/380V/50Hz/IP55	2022
	Diesel Fire Pump - B14B 4VN with NM Engine 153 kW @1760 rpm	2022
	Jockey Fire Pump - Movitec VCF010/15-B1 with 5.5 kW/ 2 pole/ 400 V/ 3 phase/ 50 Hz	2022
Fire Pump GI Ampel Boyolali	Electric Fire Pump - ETN 100-080-250 GB with 45kW/2pole/380V/50Hz/IP55	2022
	Diesel Fire Pump - ETN 100-080-250 GB with Fawde Engine 86 kW @2900 rpm	2022
	Jockey Fire Pump - MovitecVCF006/09-B with 2.2 kW/ 2 pole/ 400 V/ 3 phase/ 50 Hz	2022
Fire Pump Package Univ. Brawijaya	Electric Fire Pump - B14B 5VN/V1 - GG with 132 kW/ 4 pole	2022
	Diesel Fire Pump - B14B 5VN/V1 - GG with NM6-105B 153 kW @ 1760 rpm	2022
	Jockey Fire Pump - Movitec VCF010/15-B1 with 5.5 kW/ 2 pole/ 400 V/ 3 phase/ 50 Hz	2022
Cargill Manado	Diesel Fire Pump - SCF200-150-310 with NM6-110E 143 kW @2900 rpm	2022
Boiler-Bangkok	Electric Fire Pump - Omega 100-310 B GC with 90 kW/ 2 pole/ 380 V/ 3 phase/ 50 Hz	2022
	Diesel Fire Pump - Omega 100-310 B GC with NM4-108B, 90 kW @ 2950 rpm	2022
	Jockey Fire Pump - MovitecVCF006/14-B with 4 kW/ 2 pole/ 380 V/ 3 phase/ 50 Hz	2022
Fire Pump Package - Petrogas	Diesel Fire Pump - ES 4x3x13NF with NM4-90, 38 kW @2950 rpm	2022
Fire Pump Package for FOREL FPSO	Diesel Fire Pump - Omega 200-520B DD40 GF with Doosan Marine Engine 603 kW @2300 rpm	2022
	Fire Water Lift Pump - Omega 200-520B DD40 GF with Hydraulic Motor	2022
CARGILL BEJI	Diesel Fire Pump -150VTP200-17x3 with NM4-102B, 71 kW @2950 rpm	2022
	Jockey Fire Pump - MovitecVCF006/11-B1 with 3 kW/ 2 pole/ 400 V/ 3 phase/ 50 Hz	2022
Microsoft Data Center - JKT02	Electric Fire Pump - SCF125-80-200 with 40 Hp / 2 pole/ 380 V/ 3 phase/ 50 Hz	2022
	Diesel Fire Pump - SCF125-80-200 with NM4-90B, power engine: FM: 45 kW @ 2950 rpm	2022
	Jockey Fire Pump -MovitecVCF002/11-B with 1.1 kW/ 2 pole/ 400 V/ 3 phase/ 50 Hz	2022
	Electric Fire Pump - SCF200-150-250 with 150 Hp/ 2 pole/ 350 V/ 3 phase/ 50 Hz	2022
	Diesel Fire Pump - SCF200-150-250 with NM6-110B, power UL: 114 kW @ 2950 rpm / FM: 114 kW @ 2950 rpm	2022
	Jockey Fire Pump - MovitecVCF004/16-B with 3kW/2pole/400V/50Hz/IP55/IE3	2022
BM1 - Fire Pump Package	Electric Fire Pump - SCF200-150-330 with Techtop 200 Hp / 2P / IP23 /380V / 50Hz	2022
	Diesel Fire Pump - SCF200-150-330 with NM6-110E 143 kW @2950 rpm	2022
Fire Pump - PT. Rohm And Haas Indonesia (DOW)	Diesel Fire Pump - Omega FXF 200-330 BS with Cummins Engine 130 kW @2600rpm	2022
Proyek Pembangunan Pengolahan Sampah Landfill Mining dan RDF Plant	Electric Fire Pump - ETN 125-100-315 GB with 160kW/2pole/380V/50Hz	2022
	Diesel Fire Pump - ETN 125-100-315 GB with NM Engine 143 kW / 2900 RPM	2022
	Jockey Fire Pump - Movitec VCF006/16-B with 4kW/2pole/400V/50Hz/IP55/IE3	2022
Kayan LNG	Jockey Fire Pump - Movitec VCF015/09-B with 11 kW/ 400 V/ 2 pole/ 50 Hz/ 3 phase	2022

## FM approved for KSB Indonesia



When it comes to fire protection system, fire pumps are the most critical components and safety is an important requirement. KSB Indonesia had obtained the FM Approved, an official certificate to package fire pump products Etanorm FXM and Omega FXF. FM Approved of the certified products conform to the highest standards for safety and property loss prevention standard for use in commercial and industrial facilities.

## Pump testing facility

KSB Indonesia has proven the experiences in the assembling Fire Pump Package based on NFPA 20 which the bare shaft pumps are taken from KSB Global factories and partners (listed and non listed).

Offering comprehensive product range with competitive price, KSB Indonesia has collaborated with NM Fire that provides listed fire pumps with a wide product range.

KSB Indonesia's testing facility is established to meet the international standard for pump performance tests in accordance with ISO 9906:2012, Hydraulic Institute, and API 610:2010, and commence wide range of testing.

### Technical data

- Capacity: up to 5.000 USGPM
- Power: max 315kW (electrical motor)

### Design pump type

- Power: max 315kW (electrical motor)
- Horizontal
- Vertical
- Submersible/deep well pumps

### Accessories

- Flow meter
- Automatic pressure transmitter
- Pressure gauge
- Portable flow meter



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