Pioneering for You

Product Catalogue

Wilo – Fire Fighting Pumps

Fire pump set complete with accessories

Wilo – Fire Fighting Pumps

NFPA 20 Standards Compliant, UL Listed, FM Approved Fire Pressure Boosting Systems

Today, fire safety has become an accepted and overemphasized issue throughout the world. Fire extinguishing systems are one of the top priorities in commercial, industrial building and infrastructure facility project such as schools, hospitals, malls, airports, factories, warehouses, dams, treatment facilities, etc.

UL Listed/FM Approved (NFPA20 compliant)

UL LISTED CERTIFICATE

CERTIFICATE OF COMPLIANCE

Certificate Number	20180730-EX15489
Report Reference	EX15489-20090404
Issue Date	2018-JULY-30
Issued to:	WILO Mather and Platt Pumps Pvt. LTD Survey. No. 162 Mumbai - Pune Road Chinchwad, Pune Maharashtra 411019 INDIA
This is to certify that representative samples of	CENTRIFUGAL FIRE PUMPS, SPLIT CASE Centrifugal fire pumps, split-case, single-stage type, 6/8 CME MK-II, SCPFF 125-300 HA, SCPFF 150-300 HA, SCPFF 200-560 HB, SCPFF 80-300 DV, SCPFF 125-360 DV Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 448, Standard for Pumps for Fire-Protection Service
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Page 1 of 1

FM APPROVED CERTIFICATE

Certificate of Compliance

This certificate is issued for the following:

Centrifugal Fire Pumps - Axial Split-Case Type

SCPFF 80-300 DV
SCPFF 125-360 DV
6/8 CME MK-II
SCPFF 125-300 HA
SCPFF 150-300 HA
SCPFF 200-560 HB

Prepared for:

WILO Mather and Platt Pumps Pvt. Ltd.
Survey No. 162
Mumbai - Pune Road
Chinchwad, Pune
411019, Maharashtra
India

FM Approvals Class: 1311, dated January 2018

Approval Identification: 0003062738 Approval Granted: October 30, 2018

To verify the product continues to be Approved please refer to www.approvalguide.com.

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

David B. Fuller
VP, Manager - Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062 USA

FM Approvals
Member of the FM Global Group

FM Approved Certificate from India

Certificate of Compliance

This certificate is issued for the following:

Centrifugal Fire Pumps
(Axial Split-Case Type)
Packaged at WILO Systems Italia S.r.l.

Manufactured By:
WILO Mather and Platt Pumps Pvt. Ltd.
Sur. No. 162, Mumbai Pune Road
Chinchwad, Pune 411019 India

Packaged By:
WILO Systems Italia S.r.l.
Viale Maestri del lavoro, 2A
70100 - Bari (BA) - Italy

FM Approvals Class: 1311 (January 2018)

Approval Identification: PR452471 Approval Granted: July 23, 2019

To verify the product continues to be Approved please refer to www.approvalguide.com.

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

David B. Fuller
VP, Manager - Fire Protection
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1151 Boston-Providence Turnpike
Norwood, MA 02062 USA

FM Approvals
Member of the FM Global Group

FM Approved Certificate from Italy

WILO FireSet UL/FM

Product Features

1 Design

Compact design that integrates pump and switchgear with UL/FM approved components

2 Installation

Robust axially split case pumps to cover the main needs of commercial or industrial buildings

3 Equipment

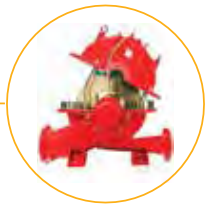
Elastic coupling with misalignment compensator for electric pump and universal coupling complies with UL requirements and is accepted by FM for diesel pump

4 Power supply

Main pump with power reserve based on 150 % of the rated volume flow, available with electric motor or diesel engine

5 Versatility

Product configurations available on request, depending on installation conditions



6 Maintenance

Safe and easy installation and maintenance

Scope of Supply

Diesel System

- Pumpset with diesel engine driver
- Control Panel (GPD)
- Pressure gauges
- Air relief valves
- Circulation relief valves
- Batteries
- Fuel tank

Electric System

- Pumpset with electric motor driver
- Control Panel (GPY)
- Pressure gauges
- Air relief valves

Jockey System

- Pumpset with mounted electric motor driver
- Control Panel (JFA)

UL/FM APPROVED PUMP DESIGN

Type Key

SCPFF 80-300 DV

SCPFF	Pump series
80	Nominal outlet diameter (mm)
300	Nominal impeller diameter (mm)
DV	Hydraulic Variant

- DV: Double Volute
- HA: Hydraulic type "A"
- HB: Hydraulic type "B"

6-8 CME MKII

6	Nominal outlet diameter (inch)
8	Nominal inlet diameter (inch)
CME MKII	Pump Series

Pump Material Specification

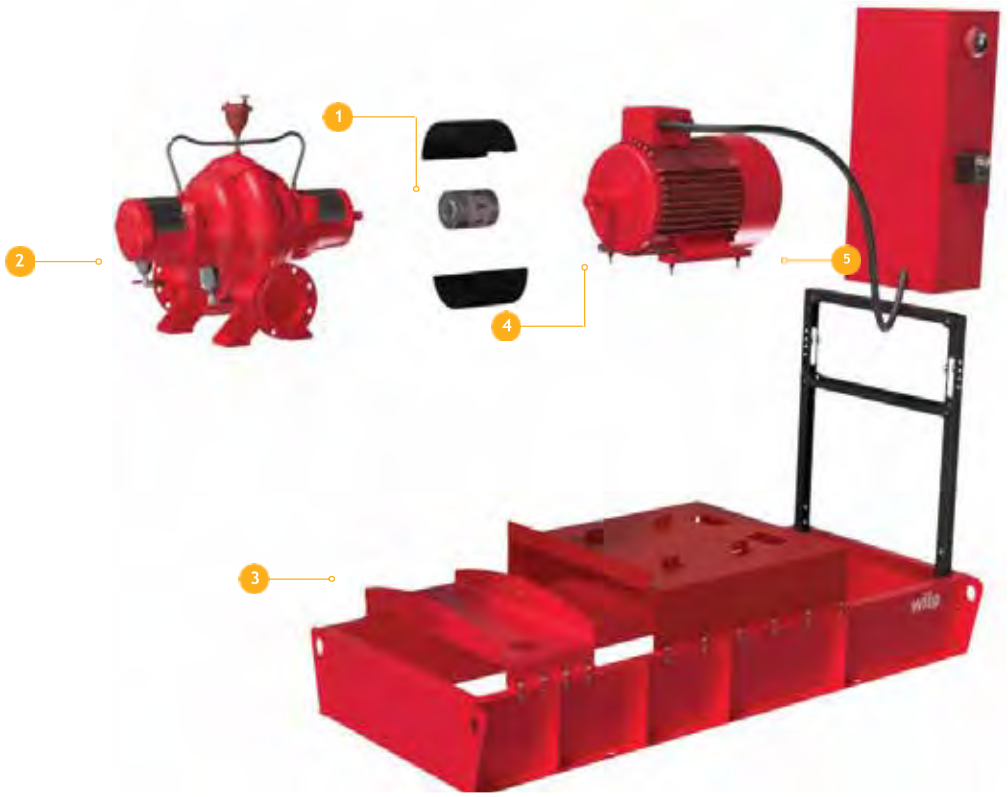
Casing	Cast Steel (A 216 Gr)
Impeller	Bronze Casting (G-CuSn10)
Shaft	Stainless Steel (SS410)
Shaft Sleeve	Stainless Steel (SS304)
Wearing Ring	Bronze Casting (G-CuSn10)
Sealing	Gland Packing

Pump Specification

Max Operating Pressure	16-25 bar
Operating Temperature	10-105 ˚C
Pump Type	Axially split case
Lubrication	Grease
Direction of Rotation	Clockwise (Optionally counter-clockwise)

Pump Model	Pump Connection (inch)	Rated Capacity (USGPM)	Rated Net Pressure Range (psi)	Rated Net Pressure Range (m)	Approx Speed (RPM)
SCPFF 80 - 300 DV	3 x 4	500	85 - 176	60 – 120	2980
SCPFF 125 - 360 DV	5 x 6	750	176 – 280	122 – 190	2980
6 - 8 CME MKII	6 x 8	750	69 – 102	49 – 72	1480
SCPFF 125 - 300 HA	5 x 6	750	123 – 199	86 – 140	2980
6 - 8 CME MKII	6 x 8	1000	65 – 100	46 – 70	1480
SCPFF 125 - 360 DV	5 x 6	1000	162 - 268	112 – 185	2980
SCPFF 150 - 300 HA	6 x 8	1000	134 - 173	94 – 122	2980
6 - 8 CME MKII	6 x 8	1250	60 - 98	42 – 68	1480
SCPFF 150 - 300 HA	6 x 8	1250	130 - 171	91 – 120	2980
6 - 8 CME MKII	6 x 8	1500	93	65	1480
SCPFF 150 - 300 HA	6 x 8	1500	122 - 163	86 – 115	2980
SCPFF 200 - 560 HB	8 x 10	2000	100 - 153	70 – 108	1480
SCPFF 200 - 560 HB	8 x 10	2500	99 - 149	69 - 105	1480

UL/FM APPROVED PUMP WITH ELECTRIC MOTOR



Key

Coupling

1
- → KTR elastic coupling, accepted by FM
- → Maximum operational reliability (breakage test)
- → Prevention of shaft stress through compensation systems

Fire pump

2
- → UL & FM compliance with NFPA 20 as standard
- → Static and dynamic characteristics tested directly in production by Wilo
- → Designed to ensure high efficiency, and easy installation and maintenance operations

FM Approval

3
- → The FM logo ensures that the pump is assembled with FM- approved components in a factory authorised by FM

Electric Motor

4
- → UL-compliant motor, accepted by FM
- → Power corrected with safety factor and high reliability of components

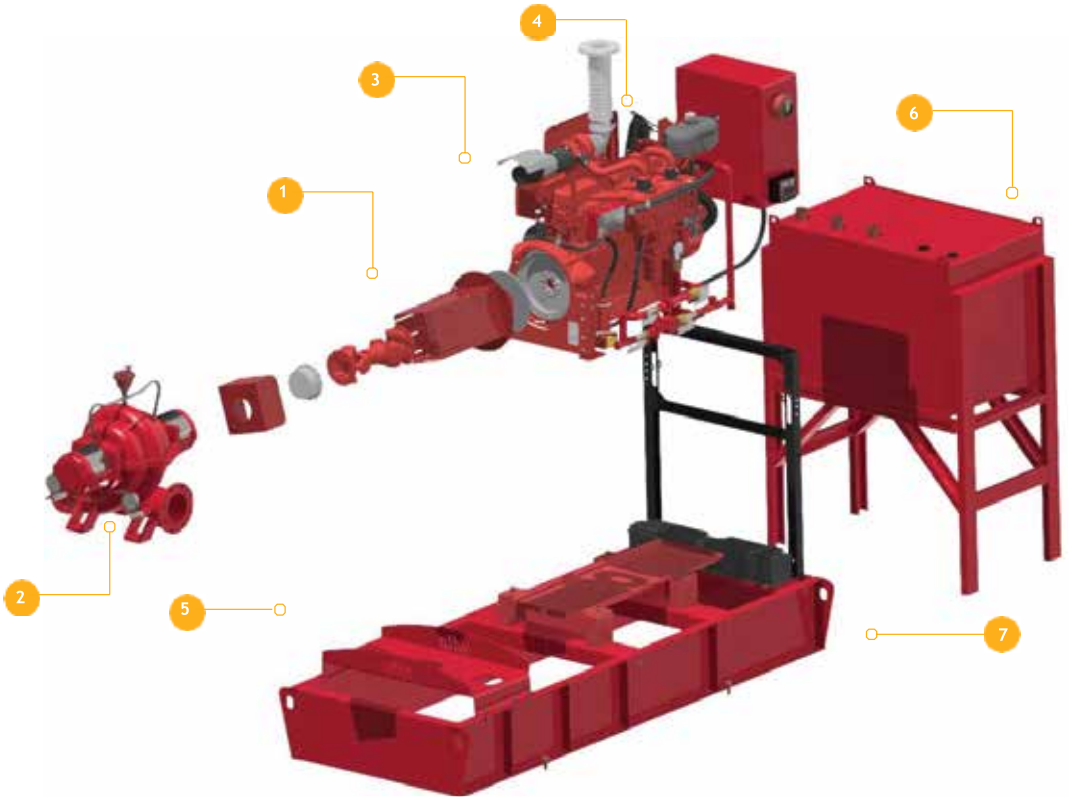
Switchgear

5
- → Switchgear components are UL/FM with CE marking as standard.
- → Designed in full accordance with NFPA 70 (NEC) electrical standards
- → Logic of the control microprocessor based on recording of the sequence of events following pressure changes as standard.
- → Protection class IP54
- → Star-delta starting

FM Approval

6
- → Easy transport thanks to the side eyebolts
- → Standard base plate consisting of a sturdy steel frame to facilitate on-site operations
- → Paintwork with RAL 3000 colour

UL/FM APPROVED PUMP WITH DIESEL ENGINE



Key

Coupling

1
- → Universal coupling compliant with UL requirements and accepted by FM
- → Maintenance-free with maximum operational reliability
- → Shaft may be moved in axial, radial and angular directions

Fire pump

2
- → UL & FM compliance with NFPA 20 as standard
- → Static and dynamic characteristics tested directly in production by Wilo
- → Designed to ensure high efficiency, and easy installation and maintenance operations

Diesel Engine

3
- → UL/FM-compliant diesel engine with silencer for industrial installation and flexible drainage
- → Power revised with safety factor in accordance with NFPA 20
- → Engine cooling is ensured through a dedicated heat exchanger

Switchgear

4
- → Switchgear components are UL/FM with CE marking as standard
- → Protection class IP54
- → Simplified installation and maintenance procedures

Baseplate

5
- → Standard base plate consisting of a sturdy steel frame to facilitate on-site operations
- → Paintwork with RAL 3000 colour
- → Easy transport thanks to the side eyebolts

Combustible Tank

6
- → Designed and dimensioned in accordance with NFPA 20 standard
- → Single-wall tank as standard

Battery Pack

7
- → Easy transport thanks to the side eyebolts
- → Two lead batteries (12 V or 24 V) provide improved reliability
- → Dimensioned in accordance with NFPA 20 standard

FM Approval

8
- → The FM logo ensures that the pump is assembled with FM- approved components in a factory authorised by FM

Open Lineshaft Vertical Turbine Fire Pumps

MOTOR

- → Optional right angle gear drives
- → Vertical hollowshaft of solid shaft
- → Can be supplied with a non-reverse ratchet
- → Top adjusting nut allows user to adjust lateral setting
- → Bearing designed to carry thrust loads and is oil lubricated
- → Available in WP-I, WP-II, TEFC & Explosion-Proof enclosures

DISCHARGE HEAD

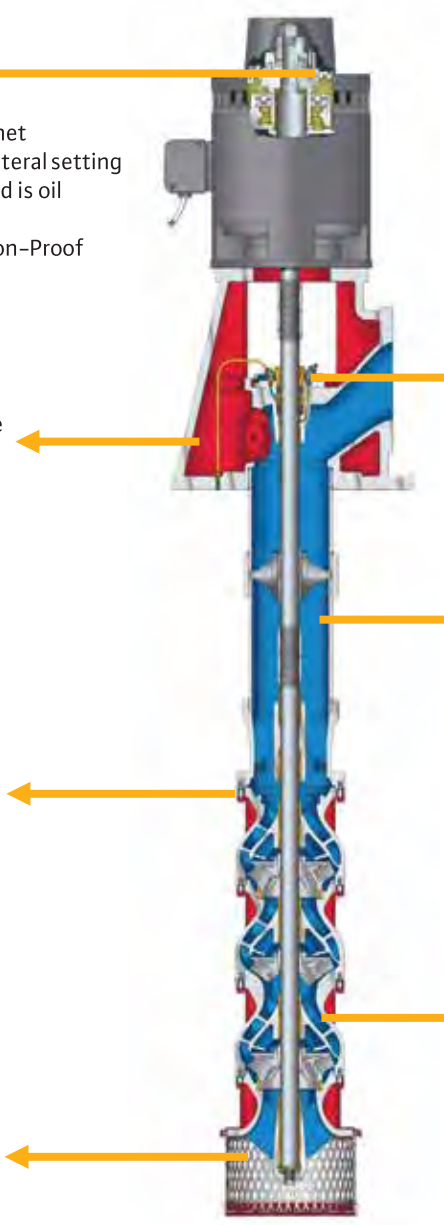
- → Stainless steel top shaft
- → Optional fabricated steel heads available
- → Headshaft coupling connects top shaft to headshaft
- → High profile head allows for ease in servicing packing
- → Integral drip basin collects leakage from stuffing box
- → Spacer couplings are available for use with VSS motors
- → Heavy duty ASTM A48 class 30 cast iron construction standard

DISCHARGE CASE

- → Two discharge bearings for additional support
- → Heavy duty ductile iron construction standard
- → Additional vanes for minimizing turbulence, thus improving efficiency

STRAINER

- → Basket or cone strainers are available upon request
- → Stainless steel materials are available
- → Vortex suppressors can be supplied to minimize inlet stress



STUFFING BOX

- → Packed with lantern ring standard
- → High-pressure stuffing boxes and shaft sleeves are optional
- → Grease port for throat bushing lubrication

COLUMN ASSEMBLY

- → Larger diameter, steel shaft material
- → Heat straightened shafting standard
- → Heavy wall carbon steel construction
- → Product lubricated lineshaft bearings
- → Overall length is engineered to customer specifications
- → Cast 304 stainless steel bearing retainer with cutlass rubber insert
- → Threaded column is standard through 12" and flanged for larger sizes

BOWL ASSEMBLY

- → Bronze bowl bearings standard
- → 416 stainless steel bowlshaft is standard
- → Impellers are expertly machined to customer specifications
- → Heavy duty ASTM A48 class 30 cast iron construction standard
- → Heavy duty grease-packed suction case bearing with sand collar
- → Diffuser bowls through 16" have standard vitreous enamel lining
- → Heavy wall ASTM A48 class 30 cast iron construction with 304 stainless steel impellers
- → Tapered impeller collets are used on bowls through 16" with keyed impellers used on larger sizes

Open Lineshaft Vertical Turbine Fire Pumps

Performance Specifications

SIZE: 10" to 19" (350–483 mm)
FLOWS: Up to 5,000 gpm (1,817 m^3/hr)
HEADS: Up to 800 feet (244 meters)
PRESSURE: Up to 370 psi

- UL Listed Certified & Approved Pumps
- Compliance to NFPA 20 Design Regulations
- Matches FM Approval requirements
- Multiple Range of Flow and Pressures

Range of Pumps

Pump Model	Stage(s)	Rated Capacity (USGPM)	Rated Net Pressure Range (psi)	Rated Net Pressure Range (m)	Approx Speed (RPM)
12MC	3-10	500	49-238	30-160	1450
			69-349	49-240	1760
		750	63-334	43-230	
14HCR	3-5	750	82-174	56-120	1450
			125-266	86-180	1760
14MCR	3-6	750	79-226	54-150	1450
			119-343	82-240	1760
14HCR	3-5	1000	77-166	53-110	1450
			114-258	78-180	1760
14MCR	3-6	1000	72-209	50-150	1450
			112-323	80-220	1760
14HCR	3-5	1250	73-165	50-110	1450
			108-148	75-100	1760
14MCR	6	1250	192	130	1450
			298	200	1760
14HCR	3-5	1500	71-165	50-110	1450
			103-249	70-170	1760
16LC	2	1500	51-63	35-40	1450
	3		77-95	53-65	
	4		102-112	70-77	
	5		128-140	90-100	
	2		79-95	54-65	1760
	3		118-143	80-100	
	4		158-191	110-130	
	5		197-213	130-145	
14HCR	5	2000	234	160	1760
16LC	2		47-58	30-40	1450
	3		70-88	50-60	
	4		94-103	65-70	
	5		117-129	80-90	
	2		75-90	52-62	1760
	3		112-135	80-93	
	4		150-180	103-124	
	5		187-202	130-140	
19MC	1	2000	43-49	30-34	1450
	2		86-92	60-64	
	1		67-74	50-51	1760
	2		133-141	92-98	
16LC	2	2500	70-84	48-58	1760
	3		106-126	73-87	
	4		141-168	97-120	
	5		176-190	120-130	
19MC	1	2500	41-48	28-33	1450
	2		81-89	56-60	
	1		62-72	43-50	1760
	2		125-134	86-92	
19HC	2	3000	69-77	48-53	1450
	1		53-62	36-43	1760
	2		107-115	74-79	
19MC	2	3000	84	58	1450
	1		59-70	40-48	1760
	2		119-129	82-89	
19HC	2	3500	72	49	1450
	1		51-61	35-42	1760
	2		101-112	70-77	
19MC	2	3500	123	85	1760
19HC	2	4000	68	47	1450
			106	73	1760
19MC	2	4000	116	80	1760
19HC	2	4500	101	70	1760

UL/FM APPROVED PUMP DRIVER

Diesel Engine

CLARKE

- → Listed engine driver
- → Heat exchanger and radiator engine cooling system
- → Build in cooling loop on heat exchanger cooling system
- → Low speed and high speed rotation
- → Build in DC panel
- → Build in silencer with industrial clamped
- → Exhaust guarding, jacket water heater, and stub shaft asoptional accessories (standard accessories on several types)

Electric Motor

SIMOTOP marathon Motors

- → Listed motor driver
- → Low speed and high speed rotation (1500–2900 rpm)
- → Very wide range of power (depend on rotational speed)
- → IP55

UL/FM APPROVED BUILT UP CONTROLLERS

UL Listed & FM Approved

TORNATECH

Product	Model	Details	Installation	Comply to Standard
Diesel Fire Pump Controller	GPD	12 or 24 VDC	Wall Mounting	UL Listed & FM approve
Electric Fire Pump Controller	GPA GPY GPR GPS GPW	Across the line starter Wye-Delta open starter Autotransformer starter Electronic soft starter Wye-Delta closed starter	Rigid base and Wall Mounting	UL Listed & FM approve
Jockey Pump Controller	JP3 JPY	Across the line starter Wye-Delta open starter	Wall Mounting	UL Listed

Non-Listed (NFPA20 compliant)

WILO FireSet NFPA 20 Std.

Electric Fire Pump (EFP)

- Pumpset with electric motor driver
- Local Controller refer to NFPA20 Std.

Diesel Fire Pump (DFP)

- Pumpset with diesel engine driver
- Local Controller refer to NFPA Std.
- Batteries
- Fuel tank

Jockey Fire Pump (JFP)

- Pumpset with mounted electric motor driver
- Local Controller refer to NFPA20 Std.

NFPA20 Pump Design

End Suction Pump	Multistage Pump	Horizontal Split Case Pump
Wilo – MISO/PISO (ISO 2858)	**Wilo - RN, HS PLURO, IPB**	**Wilo - ASP**
Q max. : 3300 USGPM	**Q max.** : 6600 USGPM	**Q max.** : 4000 USGPM
H max. : 170 m	**H max.** : 900m	**H max.** : 260m
Speed : 2950rpm	**Speed** : 1450 – 2950rpm	**Speed** : 2950rpm
Casing : Cast iron, Ni-CI, cast steel stainless steel, duplex stainless steel Impeller : Cast iron, bronze, stainless steel, duplex stainless steel Shaft : Stainless steel, duplex stainless steel	Casing : Cast iron, Ni-CI, cast steel stainless steel, duplex stainless steel Impeller : Castiron, bronze, stainless steel, duplex stainless steel Shaft : Stainless steel, duplex stainless steel	Casing : Cast iron Impeller : Bronze Shaft : Stainless steel (SS410)
→ Reduced life-cycle costs through optimised effisiency levels → Bidirectional, force - flushed mechanical seal → Low NPSH values, best cavitation properties → Shaft coupling with or without spacer coupling	→ High pressure pump design → Modular design ensures pump version in a variety of materials and versions which can be adapted to meet customer demand sprecisely → Hydraulic pressure compensation relieves load on bearings and ensures a longer service life → Multiple optional pressure connections allow different pressures to be supplied from a single pump → Can be applied as Jockey pump	→ Robust design → Customized solutions to meet exact requirement → Shaft sleeve to ensure longer shaft life → Optimum NPSHr → Low noise and vibration → Reduced energy consumption → Less environmental impact

NFPA20 Pump Design

Vertical Turbine Pump	Split Case Pump	Jockey Pump – Multistage Pump
Wilo – VMF, CNE, VAF	**Wilo – SCP, HSC, GME**	**Wilo – Helix First V / EVO**
Q max. : 176.000 USGPM	**Q max.** : 149.000 USGPM	**Q max.** : 350 USGPM
H max. : 450 m	**H max.** : 245 m	**H max.** : 280m
Speed : 980–2950 rpm	**Speed** : 980–2950 rpm	**Speed** : 2950 rpm
Casing : Cast iron, stainless steel, cast steel, dupplex stainless steel Impeller : Castiron, bronze, stainless steel, Ni–CI, cast steel, Shaft : Stainless steel, duplex Stainless steel	Casing : Cast Iron Ni–CI, stainless steel Impeller : Castiron, bronze, stainless steel, Ni–CI, duplex stainless steel Shaft : Stainless steel, duplex stainless steel	Casing : Cast iron, Stainless steel Impeller : Stainless steel Shaft : Stainless steel
→ Minimum surface area needed → High hydraulic efficiency → Submerged pump hydraulic → Design to order as per customer specification → Trust bearing lubrication: Grease, oil Line shaft bearing lubrication: Self, forced (external) → Bowl Assembly: Pull out or non–pull out	→ Robust design → Customized solution to meet exact requirement → Shaft sleeve to ensure longer shaft life → Low NPSHr → Low noise and vibration → Reduced energy consumption → Less environmental impact (almost 100% recyclable) → Comply to RoHS directive for European countries	→ Efficiency– optimised, laser welded optimised 2D/3Dhydraulics → Corrosion–resistant impellers, guide vanes and stage housing → Flow and degassing–optimised hydraulics parts → Reinforced pump housing, flow and NPSH optimised → Space–saving and esay maintenance thanks to compact design → Space–saving and esay maintenance thanks to compact design → Particularly sturdy coupling guard

Built Up Controllers

Product	Model	Details	Installation	Comply to Standard
Diesel Fire Pump Controller	GFD	12 or 24 VDC	Wall Mounting	NFPA20
	GPD	12 or 24 VDC		UL Listed
Electric Fire Pump Controller	GFA GFY GFR GFS GFW	Across the line starter Wye-Delta open starter Autotransformer starter Electronic soft starter Wye-Delta closed starter	Wall Mounting	NFPA20
	GPY	Wye-Delta open starter		UL listed
Jockey Pump Controller	JP3 JPY	Across the line starter Wye-Delta open starter	Wall Mounting	UL Listed

Local Controllers (Refer to NFPA20 Std.)

- → Refer to NFPA20 standrad of fire pump control panel
- → Manufactured locally in Indonesia
- → Many types of starter for electric motor control
- → Wide standard range for electric motor control panel
- → Diesel engine control panel for 12 and 24VDC
- → Across the line and Y-Delta starter for jockey pump control panel
- → Wide standard range for jockey pump control panel

EFP Controller

DFP Controller

JP Controller

PUMP DRIVER

Diesel Engine

CLARKE FPT DCEC

- → Non-Listed engine driver
- → Heat exchanger and radiator engine cooling system
- → Build in cooling loop on heat exchanger cooling system
- → Low speed and high speed rotation
- → Build in DC panel
- → Build in silencer

Electric Motor

SIEMENS ABB weg WESTERN ELECTRIC

- → Non-Listed motor driver
- → Low speed and high speed rotation (1500-2900 rpm)
- → Very wide range of power (depend on rotational speed)
- → IP55

Horizontal Split Case Pump c/w Diesel Engine

Horizontal Split Case Pump c/w Electric Motor

End Suction Pump c/w Diesel Engine

End Suction Pump c/w Electric Motor

wilo

Pioneering for You

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