# CENTRIFUGAL FIRE PUMPS VERTICAL SHAFT, TURBINE TYPE

Multiple staging enables various capacities performance in minimum floor space



### Overview

As the heart of water and foam fire-fighting system, the fire pumps supplies the power for moving liquid. It has the characteristic or being very dependable and working intermittently with a flat performance curve.

### **Design Standard**

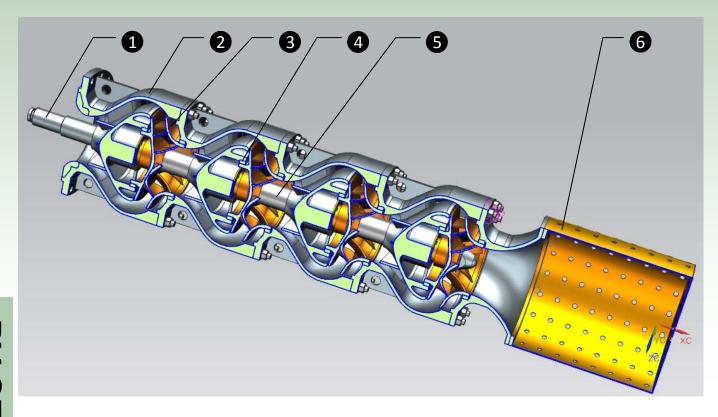
- FM 1312
- NFPA 20
- UL 448
- GB 6245

### **Feature**

- Max. capacities is 33000LPM (8800GPM), UL listed capacities to 18750LPM(5000GPM)
- Max. pressure is 25bar(360psi)
- Special materials for seawater applications
- Diesel engine, electric motor driven and submersible electric motor driven. The maximum driven power is 1,500kW/2010HP



## **Pump Structure**



No.	Part Name	Material
1	Shaft	Monel, Super duplex Stainless steel*
2	Bowl	Ni-Al Bronze, Super Duplex Stainless Steel*, Stainless Steel
3	Impeller	Ni-Al Bronze, Super duplex Stainless Steel*, Stainless Steel
4	Wear ring	Ni-Al Bronze,
5	Interstage sleeve	Stainless Steel, Duplex Stainless Steel*
6	Strainer	Ni-Al Bronze, Stainless Steel

Note:\*

Super duplex stainless steel: Duplex stainless steel:

## **Fire Pump Configuration**

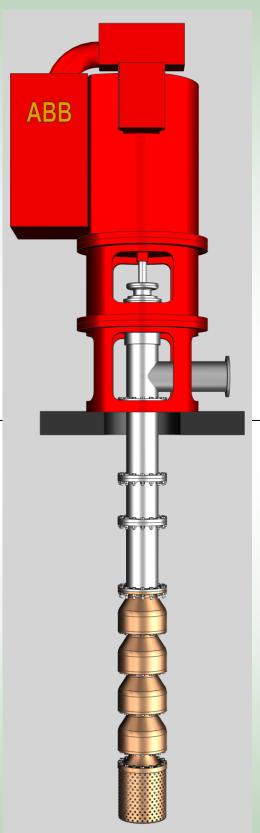


### **Electric/Submersible Motor Driven**

PDFC fire water pumps are available in electrical motor driven configurations, coupled to motors using a flexible coupling.

The unit is assembled on a compact steel skid, factory aligned and comes with all necessary accessories.





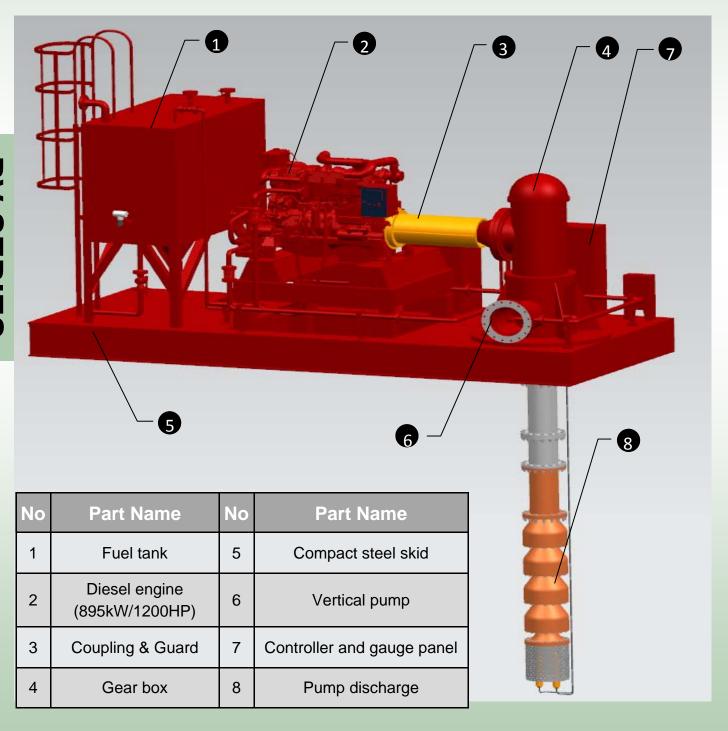


### **Fire Pump Configuration**

### **Diesel Engine Driven**

PDFC fire water pumps are available in diesel engine driven configuration, and fire pumps are coupled to diesel engines using a flexible coupling.

The unit is assembled on a compact steel skid, factory aligned and comes with water cooled or radiators with fan available, with air cleaner intake, exhaust system, fuel tank, batteries, etc., which are standard equipment.



## CERTIFICATE OF COMPLIANCE

 Certificate Number
 20180330-EX27643

 Report Reference
 EX27643-20180329

 Issue Date
 2018-March-30

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Issued to: Shanghai Pudong Special Firefighting Equipment Co Ltd

Room 205, Build 5, No. 398, Shuanglian Road, Qingpu

District Shanghai

201702 CHINA

This is to certify that representative samples of

CENTRIFUGAL FIRE PUMPS, VERTICAL TURBINE

Models: PV170-304, PV185-335, PV200-350, PV225-400,

PV250-400, PV275-430

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL448 Standard for for Centrifugal Stationary Pumps for

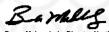
Fire-Protection Service

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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### DESCRIPTION

#### PRODUCT COVERED:

Centrifugal Fire Pumps, Vertical Turbine

USL - Centrifugal Fire Pumps, Vertical Turbine

Rated Capacity (gpm)	Model Dsg	Rated Net Pressure Range (psi)	Approx Speed (rpm)	Number of Stages
		75-85	1480	2
750	DI 170 204	113-128	1480	3
750	PV170-304	150-170	1480	4
		188-255	1480	5 - 6
		72-83	1480	2
1000	DI 1 7 0 2 0 4	108-124	1480	3
1000	PV170-304	144-165	1480	4
		180-248	1480	5 - 6
		69-80	1480	2
		103-121	1480	3
1250	PV170-304	138-161	1480	4
		172-241	1480	5 - 6
		109-123	1760	2
750	PV170-304	163-184	1760	3
		217-246	1760	4
		105-119	1760	2
1000	PV170-304	157-179	1760	3
		210-238	1760	4
		102-116	1760	2
1250	PV170-304	152-174	1760	3
		203-232	1760	4
		80-94	1480	2
		119-140	1480	3
1250	PV185-335	159-187	1480	4
		199-234	1480	5

Rated Capacity (gpm)	Model Dsg	Rated Net Pressure Range (psi)	Approx Speed (rpm)	Number of Stages
		76-90	1480	2
1500	PV185-335	114-135	1480	3
		152-224	1480	4 - 5
1250	D7/10E 22E	117-135	1760	2
1250	PV185-335	175-203	1760	3
1500	D7/10E 22E	113-132	1760	2
1500	PV185-335	170-197	1760	3
1500	D11200 250	90-119	1480	2
1500	PV200-350	134-238	1480	3 - 4
2000	D11200 250	84-115	1480	2
2000	PV200-350	126-230	1480	3 - 4
1500	PV200-350	131-171	1760	2
2000	PV200-350	125-165	1760	2
2000	D1100E 400	117-153	1480	2
2000	PV225-400	176-306	1480	3 - 4
2500	D1100E 400	114-149	1480	2
2500	PV225-400	171-298	1480	3 - 4
		127-137	1480	2
3000	PV250-400	190-206	1480	3
		254-275	1480	4
		123-135	1480	2
3500	PV250-400	185-202	1480	3
		246-270	1480	4
		118-130	1480	2
4000	PV250-400	178-195	1480	3
		237-260	1480	4

Rated Capacity (gpm)	Model Dsg	Rated Net Pressure Range (rpm)  (psi)		Number of Stages		
		66-78	1480	1		
4000	PV275-430	133-156	1480	2		
		199-234	1480	3		
		64-76	1480			
4500	PV275-430	129-152	1480	2		
		193-229	1480	3		
		62-74	1480	1		
5000	PV275-430	124-147	1480	2		
		186-221	1480	3		



## CENTRIFUGAL FIRE PUMPS SPLIT-CASE TYPE

**Engineered for rugged Reliable service** 



### Overview

As the heart of water and foam fire-fighting system, the fire pump supplies the power for moving liquid. It has the characteristic or being very dependable and working intermittently with flat performance curve.

### **Design Standards**

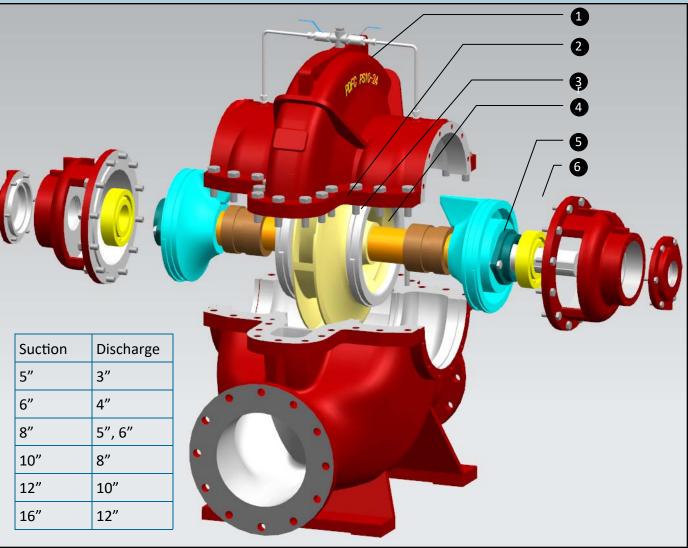
- FM 1311
- NFPA 20
- UL 448
- GB 6245

### **Features**

- Max. flow is 33,000LPM (8,800GPM)
- Max. pressure is 25BAR(360PSI)
- Stainless Steel or Bronze for seawater applications
- Max. diesel or electric power drive:1600kW(2144HP)



## **Pump Structure**



No.	Part Name	Material		
1	Pump casing	Ductile Iron, Stainless Steel, Brass		
2	Double intake impeller	mpeller Silicon Brass, Stainless steel		
3	Wear ring	Bronze		
4	Shaft sleeve	Stainless steel		
5	Shaft	Stainless steel		
6	Bearing house	Cast Iron, Stainless steel		

### **Fire Pump Configuration**



### **Electric Motor Driven**

PDFC fire water pumps are available in electrical motor driven configurations, coupled to motors using a flexible coupling.

The unit is assembled on a compact steel skid, factory aligned and comes with all necessary accessories.



### **Diesel Engine Driven**

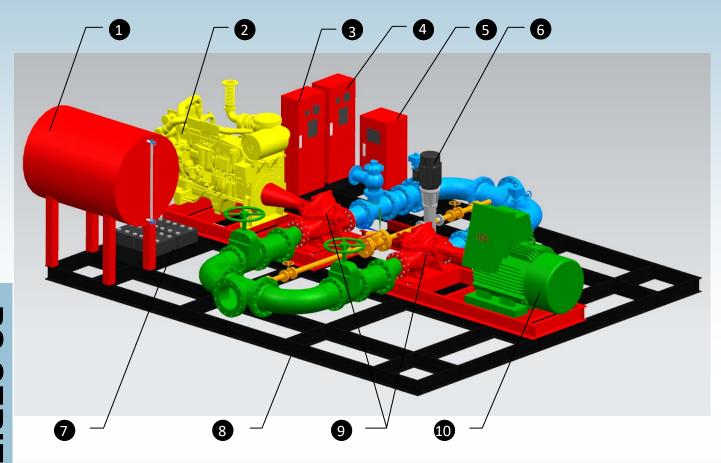
PDFC fire water pumps are available in diesel engine driven configurations, coupled to diesel engines using a flexible coupling.

The unit is assembled on a compact steel skid, factory aligned and comes with water cooled or radiators with fan available, with air cleaner intake, exhaust system, fuel tank, batteries, etc., which are standard equipment.





## Packaged Fire Pump skid



No	Part Name		Part Name	
1	Fuel Tank		Jockey Pump	
2	Diesel Engine (895kW/1200HP)		Batteries	
3	3 Control Panel For Diesel Engine Driven Pump		Multiples Bolted Compact Steel Skid	
4	Control Panel For Motor Driven Pump		Two Fire Pumps	
5	Control Panel For Jockey Pump		Electric Motor (710kW/950HP)	

## CERTIFICATE OF COMPLIANCE

Certificate Number EX28171

Report Reference EX28171-20191218
Issue Date 2019-DECEMBER-26

Issued to: Shanghai Pudong Special Firefighting Equipment Co Ltd

Room 205, Build 5, No. 398, Shuanglian Road, Qingpu

District Shanghai

201702 CHINA

This certificate confirms that CENTRIFUGAL FIRE PUMPS, SPLIT CASE

representative samples of Centrifugal Fire Pumps, Split Case

PS150-300, PS150-340, PS200-470, PS200-550

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL448 - Standard for Centrifugal Fire Pumps for Fire

**Protection Service** 

Additional Information: See the UL Online Certifications Directory at

https://ig.ulprospector.com for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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## DESCRIPTION PRODUCT COVERED:

USL -Centrifugal Fire Pumps, Split Case

	or rragar	. File Fumps, Spii	e case		
Rated Capacity	Size,	Model Designation	Rated Net Pressure Range,	Approx. Speed,	Maximum Working Pressure,
GPM (US)	inches		PSI	RPM	PSI
750			88 - 136		
1000			84 - 133	2600	
1250			77 - 127		
750			94 - 159	2800	
1000			89 - 155		
1250			82 - 149		
750	8X6	PS150-300	107 - 178		330
1000			101 - 174	2050	
1250			94 - 168	2950	
1500			161		
1000			151 - 255	3550	
1250			145 - 250		
1500			135 - 243		
750			121 - 178		
1000			116 - 174	2600	
1250			110 - 168		
1500			161		
750			123 - 208	2800	
1000	8X6	PS150-340	119 - 203		306
1250	07.0	15150 540	130 - 198		
1500			120 - 190		
750			121 - 231	2950	
1000			117 - 226		
1250			125 - 221		
1500			114 - 214		
2000			78 - 107	1460	246
2500			78 - 100		
2000			99 - 160	1770	
2500	10X8	PS200-470	99 - 154		
3000			122 - 147		
2000			105 - 171		
2500			108 - 164		
3000	-		135 - 157		- 303
2000			96 - 153	1460	
2500			94 - 149	1460	
3000	10X8	PS200-550	103 - 143		
2000			138 - 228	1770	
2500			147 - 223		
3000			140 - 218		