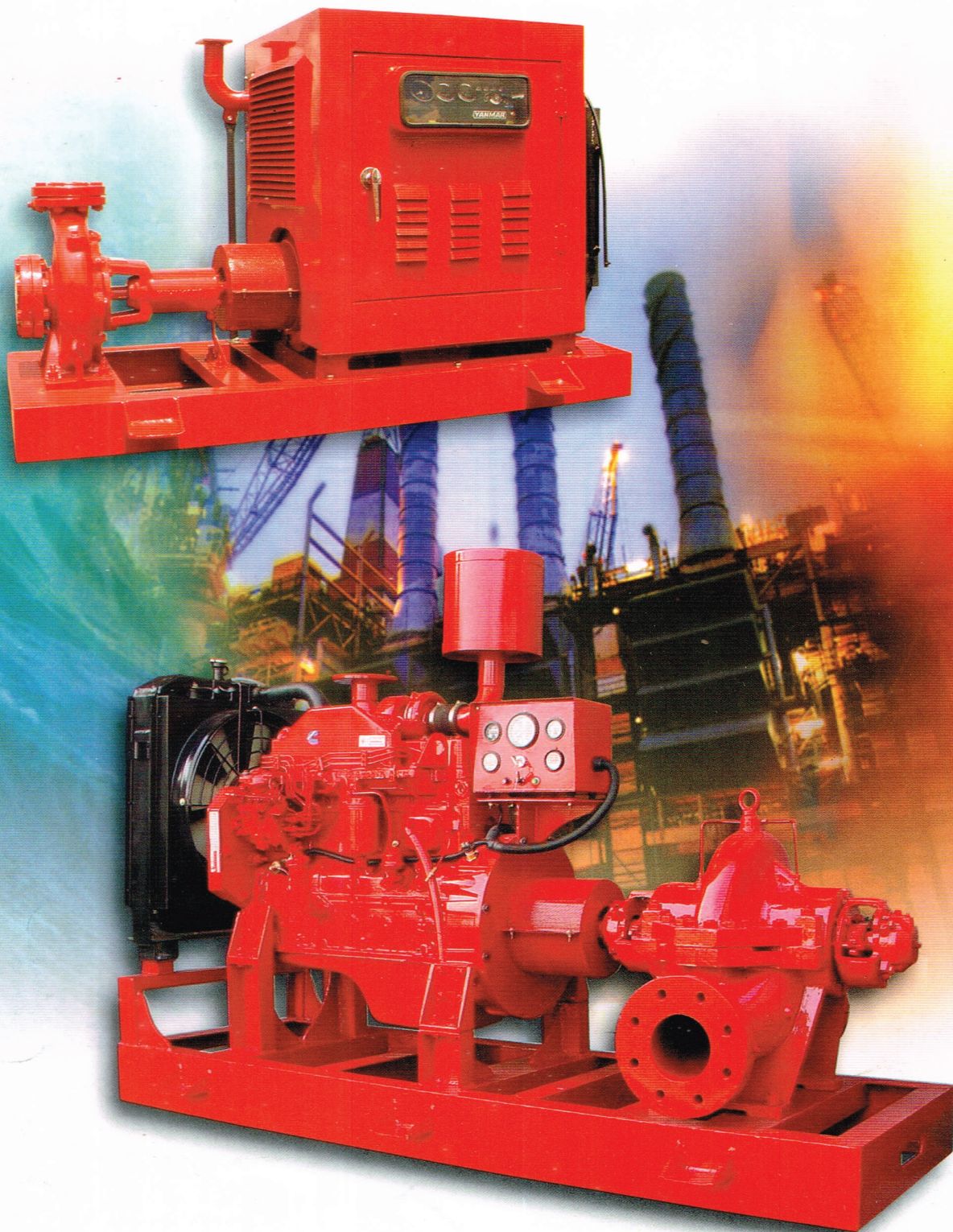


FIREPAC

Diesel Engine & Motor Drive

Packaged Fire Pump Set

NFPA 20



APPLICATIONS

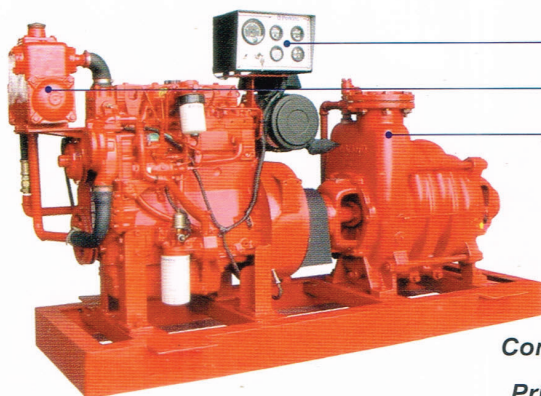
In the prevention of life or damage to property, modern fire protection systems utilize a pump to provide the flow and water pressure needed when adequate supply is not available. A pump for this service requires special construction, components and accessories to insure safe, reliable operation. The spacial pump units are furnished to meet the standards of National Fire Protection Association Pamphlet No.20, (NFPA 20)

- Fire hydrant pump unit, Fire sprinkler pump unit for high-rise building, industrial factory, hotel, hospital, etc.

FEATURES

1. Packaged fire pump unit complete with pump, motor or engine, control panel, priming tank, fuel tank, other acessories etc.

2. Several kind of pumps and drivers upon requirements.

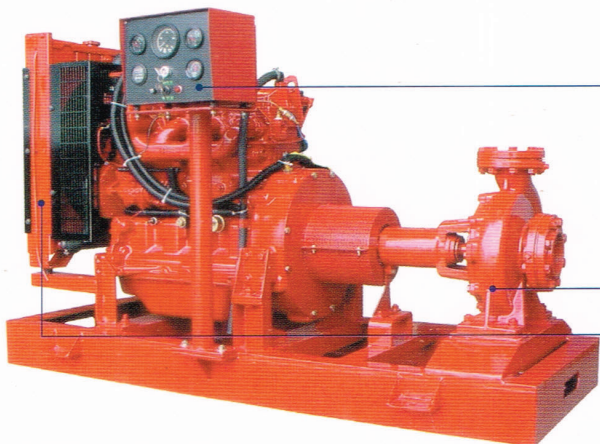


- Engine panel
- Heat exchanger w/ cooling piping
- Self priming multi-stages pump
- Vertical Turbine Pump

Control panel

Priming tank

End suction centrifugal pump



- End suction centrifugal pump
- Radiator w/ fan

SPECIFICATIONS

ITEM	DESCRIPTION	ITEM	DESCRIPTION
Pump	End suction centrifugal pump	Engine panel	Tachometer
	Horizontal split-case pump		Hourmeter
	Self-priming multi-stages pump		Temperature gauge
Motor	TEFC type, IP55, class F		Oil pressure gauge
Diesel engine	4 Stroke, Direct injection		Emergency start key
	water cooled type	Switch & Sensor	Temperature switch
Cooling system	Radiator w/fan		Temperature sensor
	Heat exchanger w/cooling piping		Oil pressure switch
Control panel	Followed NFPA 20 standard		Oil prssure sensor
Priming tank	150 litres w/electrode		Magnetic pick-up (MPU)
Accessories (Optional)	depend on engine horse power		Speed switch
	Main relief valve		Auxiliary magnetic switch (AMS) (2)
	Flow meter	Accessories	Flexible exhaust
	Enclosed waste cone		Exhaust muffler (silencer)
	Spring Isolator		Battery w/rack (2)

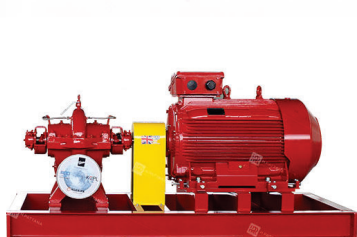
DIESEL ENGINE FIRE PUMP CONTROLLER

The controller is designed and manufactured in accordance with most of general requirement as outlined by The National Fire Protection Association in their Pamphlet No. 20 (NFPA 20)

STANDARD FEATURES :-

The Controller enclosure is constructed with 2 mm steel sheet and epoxy coated to provided protection against dust and dripping water.

- Two voltmeters, Two ammeters
- Two independent battery chargers for 12 or 24 volts
- Weekly test timer
- Pressure switch
- " MAN-OFF-AUTO " selector switch
- Operation push buttons
 - Crank on battery #1
 - Crank on battery #2
 - Stop / Reset
 - Silient alarm
 - Engine test (open solinoid drain valve)
- Audible and visible indication for the following alarm conditions :-
 - Automatic function
 - Low oil pressure
 - Charger mulfunction
 - High water temperature
 - Battery #1 trouble
 - Failed to start
 - Battery #2 trouble
 - Silient alarm
 - Engine overspeed
- Remote start and remote contacts are available as standard.



ELECTRIC MOTOR FIRE PUMP CONTROLLER

The combined automatic and manual electric motor fire pump controller are intended for star-delta starting which provided with all necessary component for :-

- Optimum motor protection
- Operating and failure signals
- Man-Off-Auto selector
- Priming tank low level alarm
- Pressure switch

JOCKEY PUMP AND CONTROLLER

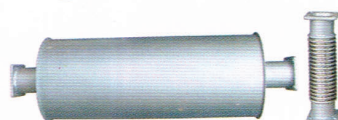
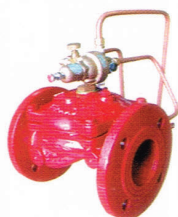
Vertical multi-stages in-line pump which is high pressure and low capacity pump can be used with the controller as jockey pump for pressure maintenance on fire pump systems to prevent unnecessary cycling of main fire pump.

- Optimum motor protection
- Operating and failure signal
- Minimum running timer
- Pressure switch



ACCESSORIES

- Priming tank
- Fuel tank
- Battery w/ rack (2)
- Flexible exhaust
- Exhaust muffler
- Main relief valve
- Flow meter
- etc.



FIRE PUMP DATA REFER TO NFPA 20

Pump Rating		Minimun Pipe Size (Norminal In.)						
GPM	L/Min	Suction (In.)	Discharge (In.)	Relief Valve (In.)	Relief Valve Discharge (In.)	Meter Device (In.)	No. & Size Hose Valve	Header Supply (In.)
25	95	1	1	3/4	1	1 1/4	1 - 1 1/2	1
50	189	1 1/2	1 1/4	1 1/4	1 1/2	2	1 - 1 1/2	1 1/2
100	379	2	2	1 1/2	2	2 1/2	1 - 2 1/2	2 1/2
150	568	2 1/2	2 1/2	2	2 1/2	3	1 - 2 1/2	2 1/2
200	757	3	3	2	2 1/2	3	1 - 2 1/2	2 1/2
250	946	3 1/2	3	2	2 1/2	3 1/2	1 - 2 1/2	3
300	1136	4	4	2 1/2	3 1/2	3 1/2	1 - 2 1/2	3
400	1514	4	4	3	5	4	2 - 2 1/2	4
450	1703	5	5	3	5	4	2 - 2 1/2	4
500	1892	5	5	3	5	5	2 - 2 1/2	4
750	2839	6	6	4	6	5	3 - 2 1/2	6
1000	3785	8	6	4	8	6	4 - 2 1/2	6
1250	4731	8	8	6	8	6	6 - 2 1/2	8
1500	5677	8	8	6	8	8	6 - 2 1/2	8
2000	7570	10	10	6	10	8	6 - 2 1/2	8
2500	9462	10	10	6	10	8	8 - 2 1/2	10
3000	11,355	12	12	8	12	8	12 - 2 1/2	10
3500	13,247	12	12	8	12	10	12 - 2 1/2	12
4000	15,140	14	12	8	14	10	16 - 2 1/2	12