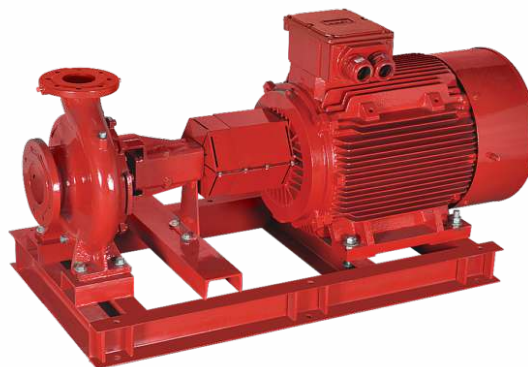
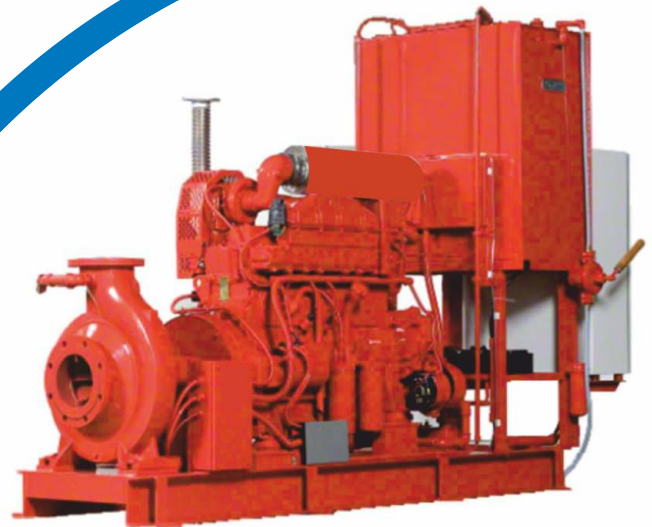


FIRE FIGHTING PUMPSET

DATA BOOKLET



SHAKTI

THE POWER OF INNOVATION, EFFICIENCY & TECHNOLOGY.

FIRE PUMPSET

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FIRE PUMPSET

INTRODUCTION

The foundation of Shakti Pumps (India) Ltd. Was laid in 1982. From a humble beginning, we have gone from strength to strength to become India's largest manufacturer of submersible pumps and motors today.

An ISO 9001:2015, ISO 14001:2015 & BS OHSAS 18001:2007 company, our cutting edge manufacturing facility with an installed capacity of 10,00,000 pumps per annum is located in Central India at Pithampur (M.P.).

We accord paramount importance to quality. Be it practices, procedures or people, each and every aspect of our company, comes together to ensure that customers get products and services of the highest quality.

Our quality control and testing labs are amongst the most advanced setups in the country-enabling us to meet international quality standards consistently.



FIRE PUMPSET

OVERVIEW OF FIRE PROTECTION:

Today most of the equipment's used in offices, Industries and at home are highly sophisticated and high-end equipment's. Every workplace has mission critical areas that need to be protected from fire hazard not only to save life and property but also to ensure that the enterprise does not come to a stand still.

The most common fuels in fire and explosion incidents are petroleum products, cellulose materials (wood, paper, cloth) and polymers.

INTRODUCTION :

Using a horizontal shaft with an overhung impeller and bearing arrangement, the space saving end suction configuration has become the most common centrifugal pump arrangement.

Shakti Fire fighting pumps are designed to meet high pumping requirements in terms of performance and efficiency, this range are customized to suit the specific application of the customer.

Shakti automatic fire pump sets are typically used in fire fighting applications for supplying water to fire hose reels, fire hydrants or sprinkler systems.

Shakti SNK fire pumps are normally supplied as factory tested units equipped with

- Shakti SNK fire pumps sets with two horizontal, single stage, end-suction pump of which one is electrically powered and one is diesel powered.
- One Shakti SCR multistage, electrically powered jockey pump.

The jockey pump is also connected to the common discharge manifold. The jockey pump automatically maintains pressure in the system in case of leaks and prevents the duty pump from starting up when not required.

OPERATION :-

The jockey pump keeps the system pressurized and compensates for leaks in order to prevent the duty pump from starting up unnecessarily. When required, the duty pump will be started automatically in order to provide the flow rate described in operating conditions in this section.

If installed, a second diesel powered pump is a standby pump guaranteeing the supply of water to the fire system in case of failure of the first duty pump.

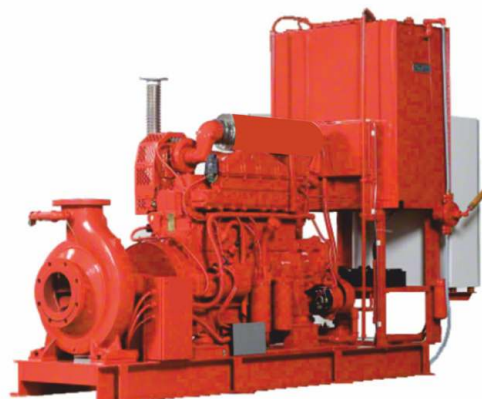
FIRE PUMPSET

APPLICATION:-

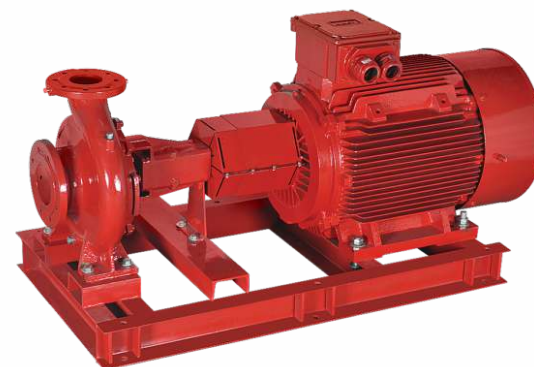
- Fireworks Industries
- Commercial complexes
- Petrochemical Industries
- Gas Plants
- High rise buildings
- Godowns
- Airports and ports
- Marine applications
- Hospital
- Schools and Colleges
- Power stations and transformer stations

MATERIAL OF CONSTRUCTION :-

1	Pump Casing	Cast iron
2	Shaft	SS 410
3	Impeller	Bronze-LTB2
4	Sealing method	Mechanical seal



DIESEL ENGINE FIRE PUMP



ELECTRIC FIRE PUMP

STANDARDISATION :-

- Manufactured Confirming to ISO 2858
- In order to meet IS 12469(1988) : Specification for pumps for Fire Fighting System greater wear life.
- Supplied in high-grade cast iron or ductile iron, carbon steel and stainless steel alloys and /or in combination of same on specific requirements.

FEATURES :-

- The pumps are non self priming, single stage, centrifugal volute pumps with axial suction port, radial discharge port and horizontal shaft.
- The pumps are of the back pull out design enabling removal and dismantling of the motor, coupling, bearing bracket and impeller without disturbing the pump housing or pipework.
- All pumps are dynamically balanced according to ISO 1940 class 6.3. Impellers are hydraulically balanced.
- Efficient operation
- Reduced installtion time and cost
- Lower initial cost

FIRE PUMPSET

FIRE PUMPS CONTROLLERS :-

Shakti Fire pump controller shall be factory assembled and factory tested. Electrically powered main duty pump & jockey pump are controlled by single controller and diesel powered pump is controlled by separate controller also terrace booster pump can be provided on customer request.



FIRE PUMPSET

SELECTION DATA - MAIN ELECTRIC FIRE PUMP SELECTION

S. No.	Flow	Head	Pump Type	Pump Model	Suction x Delivery	Speed	Motor
	m3/hr	mtr			mm	RPM	kW
1	97	45	End Suction	SNK 65-200	80x65	2900	18.5
2	97	50	End Suction	SNK 65-200	80x65	2900	22
3	97	55	End Suction	SNK 65-200	80x65	2900	30
4	97	60	End Suction	SNK 65-200	80x65	2900	30
5	97	70	End Suction	SNK 65-250	80x65	2900	30
6	137	60	End Suction	SNK 80-200	100x80	2900	45
7	137	70	End Suction	SNK 80-250	100x80	2900	45
8	137	80	End Suction	SNK 80-250	100x80	2900	55
9	137	85	End Suction	SNK 80-250	100x80	2900	75
10	137	88	End Suction	SNK 80-250	100x80	2900	75
11	137	105	End Suction	SNK 80-250	100x80	2900	75
12	144	65	End Suction	SNK 80-200	100x80	2900	45
13	144	88	End Suction	SNK 80-250	100x80	2900	75
14	144	100	End Suction	SNK 80-250	100x80	2900	75
15	171	60	End Suction	SNK 100-200	125x100	2900	55
16	171	70	End Suction	SNK 80-250	100x80	2900	55
17	171	80	End Suction	SNK 80-250	100x80	2900	75
18	171	85	End Suction	SNK 80-250	100x80	2900	75
19	171	92	End Suction	SNK 100-315	150x125	2900	75
20	171	105	End Suction	SNK 100-315	150x125	2900	75
21	171	110	End Suction	SNK 80-315	125x100	2900	90
22	171	120	End Suction	SNK 100-315	150x125	2900	110
23	273	70	End Suction	SNK 125-500	150x125	1450	90
24	273	80	End Suction	SNK 125-500	150x125	1450	80
25	273	90	End Suction	SNK 125-500	150x125	1450	110
26	273	95	End Suction	SNK 125-500	150x125	1450	132

FIRE PUMPSET

SELECTION DATA - MAIN DIESEL ENGINE FIRE PUMP SELECTION

S. No.	Flow	Head	Pump Type	Pump Model	Suction x Delivery	Engine	Speed
	m3/hr	mtr			mm	BHP	RPM
1	97	45	End Suction	SNK 65-250	100X75	36 HP	2100
2	97	50	End Suction	SNK 65-250	100X75	36 HP	2100
3	97	55	End Suction	SNK 100-315	150X125	59 HP	2150
4	97	60	End Suction	SNK 100-315	150X125	63 HP	2200
5	97	70	End Suction	SNK 65-315	100X75	66 HP	2185
6	137	60	End Suction	SNK 80-315	150X125	60 HP	2150
7	137	70	End Suction	SNK 80-315	150X125	78 HP	2100
8	137	80	End Suction	SNK 80-400	125X125	74 HP	2000
9	137	85	End Suction	SNK 80-400	150X125	115 HP	1800
10	137	88	End Suction	SNK 80-400	150X125	115 HP	1800
11	137	105	End Suction	SNK 80-400	125X125	119 HP	1900
12	144	65	End Suction	SNK 80-400	125X125	65 HP	1900
13	144	88	End Suction	SNK 80-400	125X125	110 HP	1900
14	144	100	End Suction	SNK 80-400	125X125	119 HP	1900
15	171	60	End Suction	SNK 100-315	150X125	105 HP	1850
16	171	70	End Suction	SNK 125-400	150X125	125 HP	1800
17	171	80	End Suction	SNK 80-400	150X125	115 HP	1800
18	171	85	End Suction	SNK 80-400	150X125	115 HP	1800
19	171	90	End Suction	SNK 80-400	150X125	123 HP	1800
20	171	105	End Suction	SNK 80-400	150X125	135 HP	1950
21	171	110	End Suction	SNK 80-400	150X125	138 HP	2000
22	171	120	End Suction	SNK 125-400	150X125	207 HP	1900
23	273	70	End Suction	SNK 125-500	150X150	138 HP	1500
24	273	80	End Suction	SNK 125-500	150X150	156 HP	1500
25	273	90	End Suction	SNK 125-500	150X150	203 HP	1500
26	273	95	End Suction				

FIRE PUMPSET

SELECTION DATA - JOCKEY PUMP SELECTION

S. No.	Flow	Head	Pump Type	Pump Type	Speed	Motor
	LPM	mtr			RPM	kW
1	180	45	Vertical Inline	SCR 10-6	2900	2.2
2	180	50	Vertical Inline	SCR 10-7	2900	3
3	180	55	Vertical Inline	SCR 10-7	2900	3
4	180	60	Vertical Inline	SCR 10-8	2900	3
5	180	70	Vertical Inline	SCR 10-9	2900	3
6	228	60	Vertical Inline	SCR 15-5	2900	3.7
7	228	70	Vertical Inline	SCR 15-6	2900	5.5
8	228	80	Vertical Inline	SCR 15-7	2900	5.5
9	228	85	Vertical Inline	SCR 15-7	2900	5.5
10	228	88	Vertical Inline	SCR 15-7	2900	5.5
11	228	105	Vertical Inline	SCR 15-9	2900	7.5
12	240	65	Vertical Inline	SCR 15-6	2900	5.5
13	240	88	Vertical Inline	SCR 15-8	2900	7.5
14	240	100	Vertical Inline	SCR 15-8	2900	7.5
15	285	60	Vertical Inline	SCR 15-6	2900	5.5
16	285	70	Vertical Inline	SCR 15-7	2900	5.5
17	285	80	Vertical Inline	SCR 15-7	2900	5.5
18	285	85	Vertical Inline	SCR 15-8	2900	7.5
19	285	90	Vertical Inline	SCR 15-8	2900	7.5
20	285	105	Vertical Inline	SCR 15-10	2900	11
21	285	110	Vertical Inline	SCR 15-10	2900	11
22	285	120	Vertical Inline	SCR 15-11	2900	11
23	455	70	Vertical Inline	SCR 32-5-2	2900	11
24	455	80	Vertical Inline	SCR 32-5	2900	11
25	455	90	Vertical Inline	SCR 32-6	2900	11
26	455	95	Vertical Inline	SCR 32-6	2900	11



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