



SCREW PUMPS

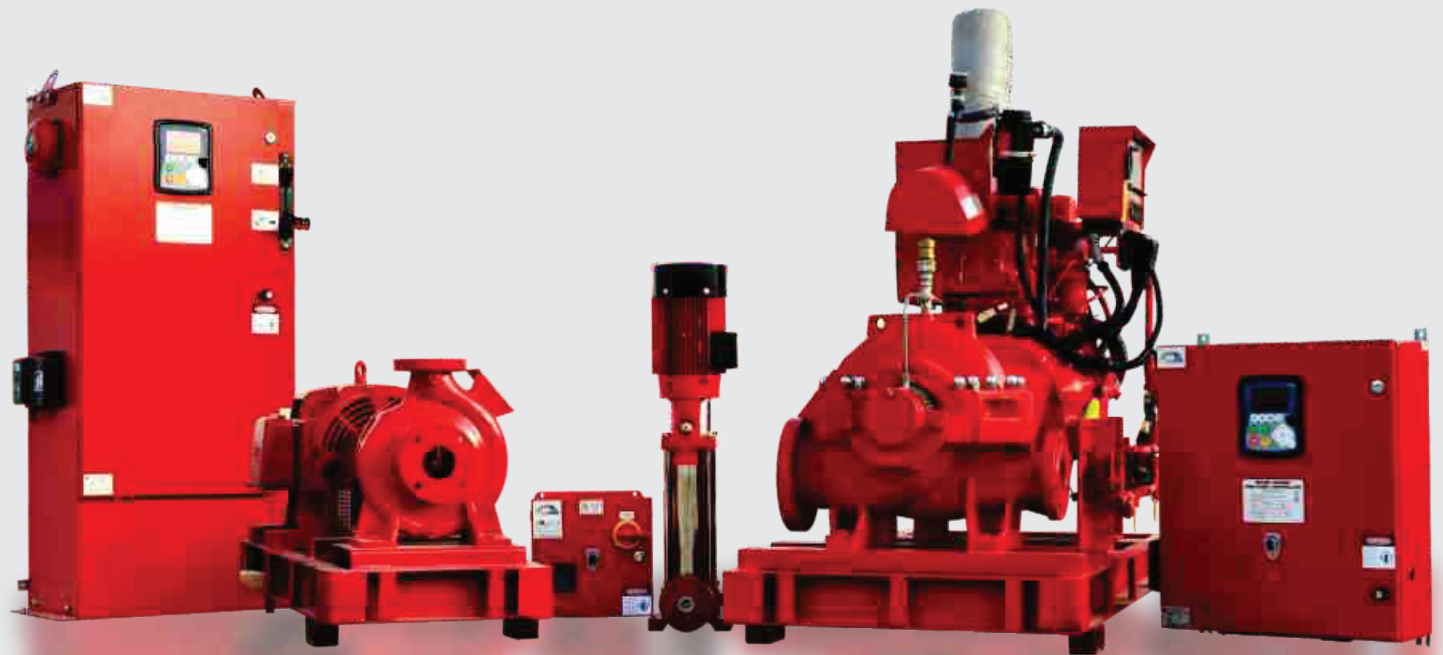


Starlone

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ABOUT FIRE PUMP SINGAPORE (FPS)

FPS, with its 20 years of experience has always been a progressive organization that has remained in the forefront of the Fire Fighting Industry with innovative, unconventional, environmental friendly, re-engineered and unique products.

FPS in its state-of-the-art manufacturing plants in **China** works in close connections with renowned governmental and certification bodies to provide key answers to the challenges faced by the society.

FPS brings together over 2-Decades of expertise and experience in form of **Design, Consultancy, Manufacturing, Supply, Installation, Testing, Commissioning, Maintenance & Refurbishment** of fire protection and fire fighting systems.



FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

TESTING FACILITY AND ASSEMBLY LINE

FPS has established a fully equipped AS2941 Pump Testing facility with advance testing and calibration devices that enable to accurately inspect and test the operation of each Centrifugal Stationery Fire Pump to the required level of compliance standard as per AS2941.

The Fire Pumps then undergo various processes in our modern well organized manufacturing and assembly line.

Before delivering to our customers, each pump undergoes necessary inspection, tests and production control, during the Assembly process, for which all records are maintained.

PERFORMANCE TESTS

Performance curves are plotted within the FPS AS2941 **Approved Pump Testing Facility** showing the Efficiency, Break-Horsepower(kw), and Total Head developed at shutoff, at rated capacity, at 150%of rated capacity, and at selected intermediate capacities between shutoff and maximum capacities exceeding 150% of rated capacity.



FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

HYDROSTATIC TEST

Each pump is to be tested hydro-statically for not less than 5 minutes. The test pressure is to be up to 2 times the maximum working pressure of the pump, but in no case less than 250psi (1724 kPa) to ensure no rupture or leakage through the castings at the test pressure.

IMPELLER BALANCING

The impellers of each pump shall be dynamically balanced to the G6.3 balance quality grade in accordance with the requirements for pump impellers in the Standard for Mechanical Vibration -Balance Quality.



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DESIGN & OPERATION FEATURES

The single screw pump has been widely used in the developed countries, where it is called as "Monopumps" and as an "Eccentric rotor pump" in Germany, and because of its good performance, the domestically applicable range has also been quickly expanded in the recent years.



The best feature of it comes as the strong suitability to a medium, stable flow, small pressure pulsation and high self-suction capacity, which can not be replaced by any other pumps.

On the basis to analyze and research the single screw pumps made in both at home and abroad, we adopt the advantages therein and makes continual reforming and creating on the one of itself, getting it in a series up till now, with the pressure as 0.6~1.2WPA, and satisfying it to the different needs of users.



SCREW PUMPS

APPLICATIONS

1. Environment protection: to transport the industrial and domestic sewages, the filth and mire containing solid grains and short fibers, especially suitable for the oil-water separator, & equipment plate-and-frame filter.
2. Shipping industry: ship bottom cleaning, oil water, oil dregs, oil sewage etc. media transporting.
3. Petroleum industry: to transport the raw oil, especially in the recent years, it has successfully pumped the mixture of both raw oil and water in a depth of 1000m under the ground and the mixture of both gas and water in a coal field, thus greatly lowering the costs for mechanical oil extraction, coal mining and gas production. In case of the later stage for a coal field, use of the pump to pump polymers into the substrate can enhance the recovery efficiency.
4. Medicine, daily chemicals: to transport various viscous pulps, emulated liquids, various soft-cream cosmetics.
5. Food and canned food industry: to transport various viscous starches, edible oil, honey, syrup jam, cream, smashed fish and meat and the leftover bits and pieces of them.
6. Brewing industry: to transport various fermented viscous liquids, concentric distiller's grains, food dregs, various sauces, pulp and the viscous liquid containing block solids.
7. Construction industry: to transport cement mortar lime white, coating and other paste spray-coating.
8. Mining industry: to drain the sewage, muddy pulp containing solid grains onto the ground from a mine.
9. Chemical industry: to transport various suspended liquids, grease, various colloidal pulps and various adhesives.
10. Printing and paper-making industry: to transport high viscous inks. PVC polymeric plastic paste of wallpapers, paper pulps and short-fiber pulpy materials of various concentrations.



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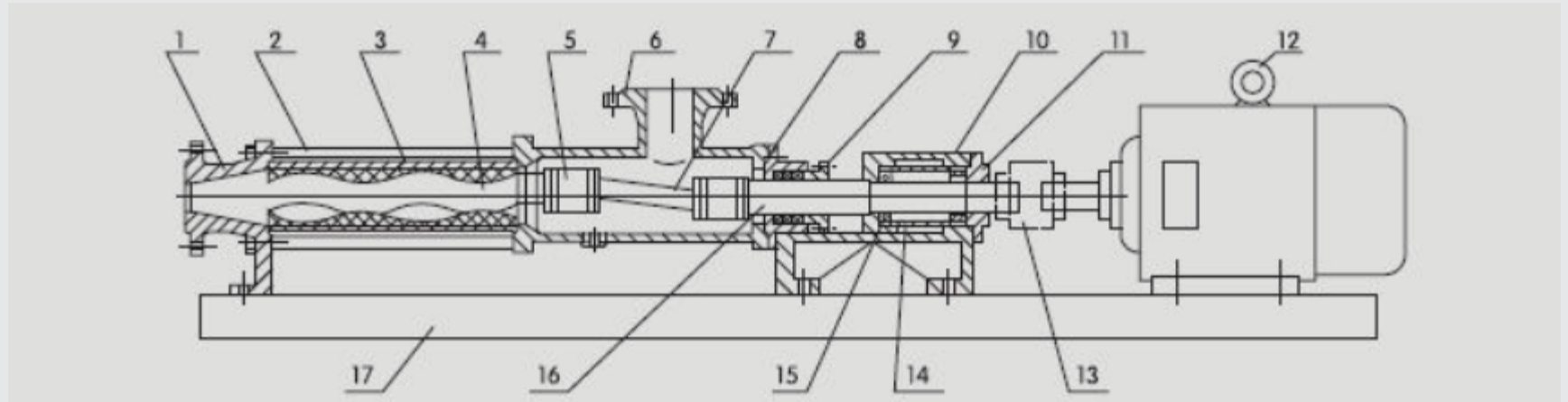
CAUTION AT USE

1. First confirm the moving direction before starting, no reversed movement is allowed.
2. Dry run is allowed.
3. Do not start the pump at once when it is newly installed or has stopped for couple of days. Instead, first prime proper engine oil into the pump and then move it for several turns with a pipe vice.
4. After transporting a high viscous or grain contained and corrosive medium, rinse it with water or solvent to prevent block-upso as to avoid difficult starting for the next time.
5. Drain out the accumulated liquid in winter to prevent frozen cracking.
6. Make a periodic filling of lubricating oil into the bearing box during use and, in case of a leak from the shaft end, process it on time or replace the oil seal.
7. In case of an abnormal condition during movement, stop it at once to check the cause and then troubleshoot.



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STRUCTURE



1. Discharge cavity
2. Pull-bar
3. Screw sleeve
4. Screw axis
5. Directional node assembly
6. Suck-in pipe
7. Joint shaft
8. Packing seat
9. Packing gland

10. Bearing seal
11. Bearing cover
12. Motor
13. Cluth
14. Muff
15. Bearing
16. Driving shaft
17. Foundation



SCREW PUMPS

NOMENCLATURE

FPYLLG 35 - 1

FP - made by Fire Pump Singapore Pte Ltd

YLLG - single screw pump series

35 - normal diameter of screw

1 - number of stages of the pump



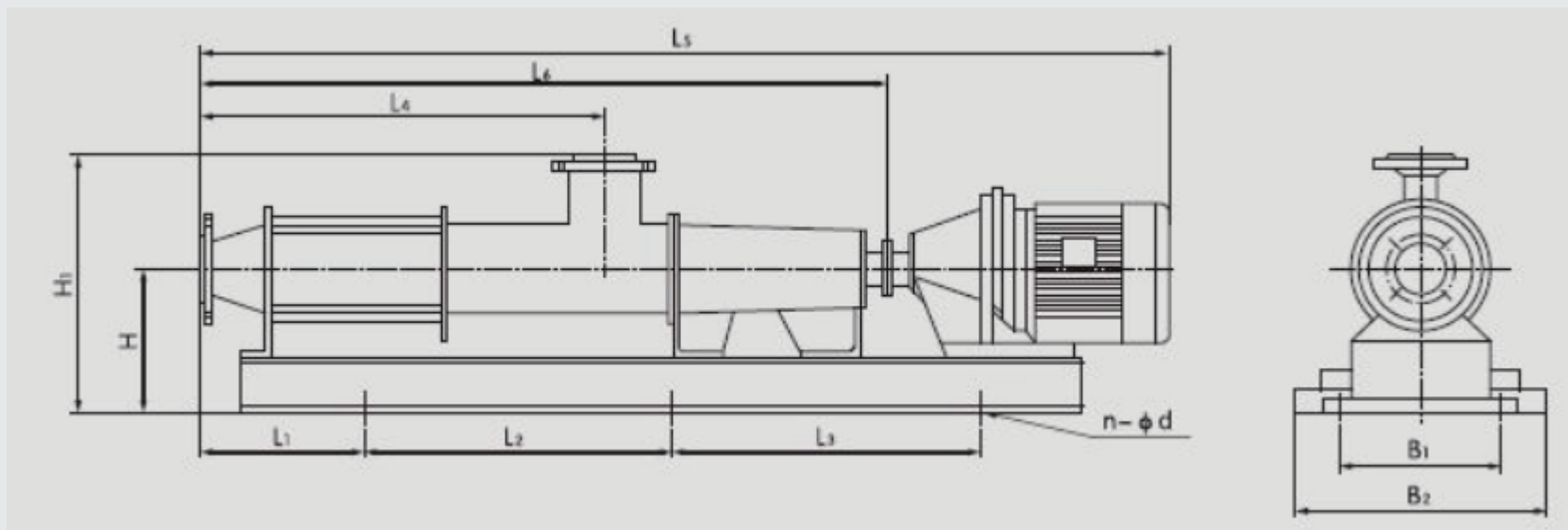
SCREW PUMPS

MODELS AND SPECIFICATIONS

Model	Capacity	Head	Pressure	Speed	Motor power	Inlet	Outlet
FPYLLG25-1	2	60	0.6	960	1.5	DG32	DG25
FPYLLG25-2	2	120	1.2	960	2.2	DG32	DG25
FPYLLG30-1	5	60	0.6	960	2.2	DG50	DG40
FPYLLG30-2	5	120	1.2	960	3.0	DG50	DG40
FPYLLG35-1	8	60	0.6	960	3.0	DG65	DG50
FPYLLG35-2	8	120	1.2	960	4.0	DG65	DG50
FPYLLG40-1	12	60	0.6	960	4.0	DG80	DG65
FPYLLG40-2	12	120	1.2	960	5.5	DG80	DG65
FPYLLG50-1	20	60	0.6	960	5.5	DG100	DG80
FPYLLG50-2	20	120	1.2	960	7.5	DG100	DG80
FPYLLG60-1	30	60	0.6	960	11	DG125	DG100
FPYLLG60-2	30	120	1.2	960	15	DG125	DG100
FPYLLG70-1	45	60	0.6	720	11	DG150	DG125

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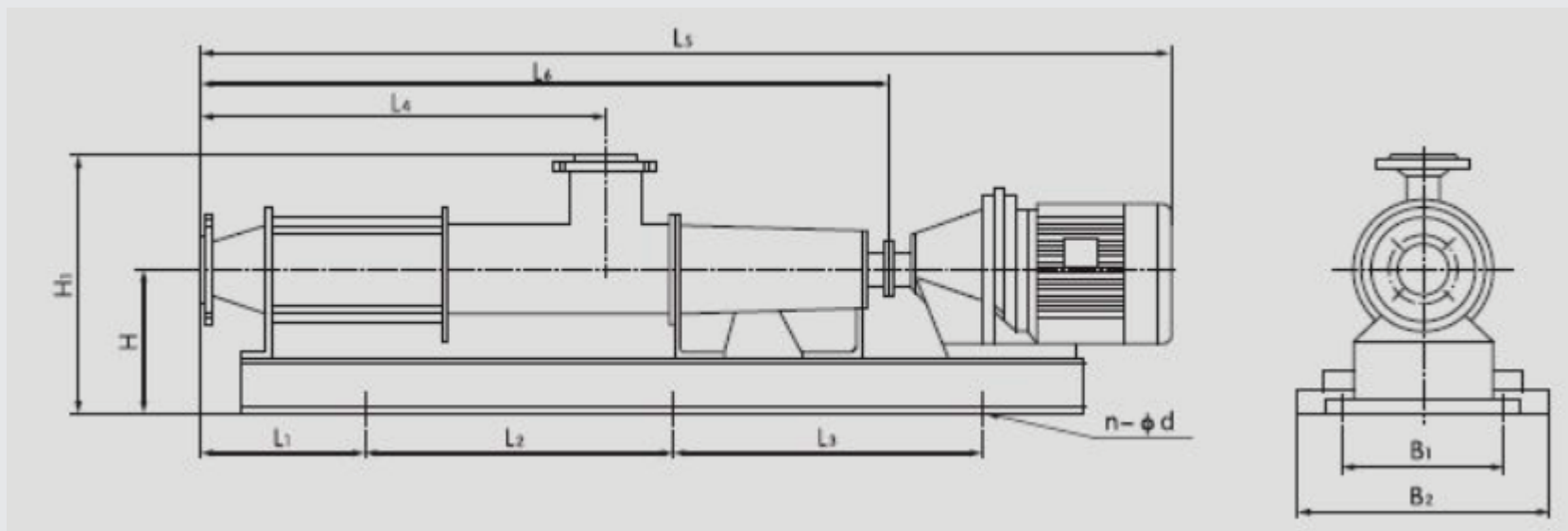
DIMENSIONS FOR EACH MODELS



Model	L1	L2	L3	L4	L5	H	H1	B1	B2	L6	N-Ød
FPYLL G25-1	105	825		325	1140	165	265	160	190	745	4X14
FPYLL G25-2	110	950		455	1280	175	280	195	230	775	4X14
FPYLL G30-1	110	840		345	1170	175	280	195	230	765	4X14
FPYLL G30-2	130	540	540	555	1510	200	325	230	265	1050	6X16
FPYLL G35-1	130	510	510	425	1385	210	325	225	265	925	6X16
FPYLL G35-2	130	622	622	650	1610	210	325	225	265	1150	6X16

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DIMENSIONS FOR EACH MODELS



Model	L1	L2	L3	L4	L5	H	H1	B1	B2	L6	N-φd
FPYLL G40-1	130	555	555	455	1490	210	325	225	265	980	6X16
FPYLL G40-2	140	700	600	670	1690	210	335	230	265	1195	6X16
FPYLL G50-1	140	575	575	510	1530	210	335	230	265	1020	6X16
FPYLL G50-2	140	820	700	770	1940	250	395	265	305	1355	6X18
FPYLL G60-1	190	600	750	570	1850	265	410	270	310	1210	6X18
FPYLL G60-2	200	807	807	865	2190	285	470	290	330	1535	6X18
FPYLL G70-1	200	710	770	685	1995	285	470	290	330	1350	6X18