



Technical Catalogue



# FSP Series

## Centrifugal Sand Pump

## FSP5x6J-12 Sand Pump

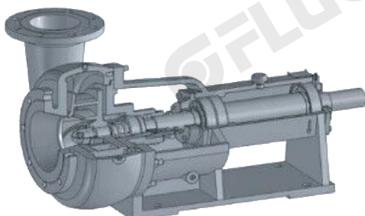
### Technical Specifications



### FSP Series Centrifugal Sand Pump

FSP series sand pump is developed matching pump according to the characteristics of oil and gas drilling equipment. It adopts an axial suction structure, and the flow passage parts are wear-resistant cast iron. Its parameter design fully considers that the matching equipment can work under the best working conditions. The versatility and interchangeability of parts are strong, the shaft seal leaks less, the work is reliable, the service life is long, and the maintenance is convenient. Sand pumps include five types of Centrifugal pumps: FSP2x3, FSP3x4, FSP4x5, FSP5x6, FSP6x8, There are more than 80 specifications based on supporting power from 4kW to 75kW. And for the drive type including direct connection and belt drive.

- Mud pumping – offshore/onshore
- Dredging
- Barite, ferric oxide, and mineral oil
- Glass fibers
- Ash or coal conveyers
- Solids control
- Leveling or Rig Platform (ballast)
- Base drilling muds
- Sugar processing
- Cement



Typical Configurations:  
FSP2x3, FSP3x4, FSP4x5, FSP5x6, FSP6x8

### Design Features

- High efficiency: the impeller and pump casing ports adopt optimized streamlined design.
- Long work life: the overflow components are made of highly wear-resistant cast iron.
- No clogging: the impeller adopts a wide flow channel design.
- Reliable sealing and easy maintenance – the auxiliary seal is a packing seal, which can prevent accidents.
- Good sealing life: the main seal of the machine seal is a high wear-resistant hard alloy mechanical seal.
- Shaft seal of FSP series sand pumps is lubricated with grease, and bearings are lubricated with oil. In addition, bearings can also be lubricated with grease (bearing caps at two ends of bearings are equipped with grease holes).
- Both inlet flanges and outlet flanges of FSP series sand pumps are with two series standard dimensions, metric and imperial respectively.
- There are two directions of rotation: forward and reverse.
- Sand pumps FSP6x8 and FSP5x6 are respectively recommended to be used with drillers over 3200m and below 2500m.

### Executive Standards

- **Design Standard**  
Hydraulic Institute 6, ISO 9001, ISO 14001, OHSAS 18001 & CE certified.
- **Material Standard**  
AS 2027 Grade Cr27, ISO 21988 Grade Cr27, ASTM A532 Grade III Type A
- **Castings Dimensional Standard**  
ISO8062
- **Performance Test Standard**  
ISO9906, ISO2548, ISO3555
- **Vibration Standard**  
ISO2372
- **Noise Standard**  
ISO3746
- **Hydrostatic Test Standard**  
ANSI/HI 1.6-2000

## Options

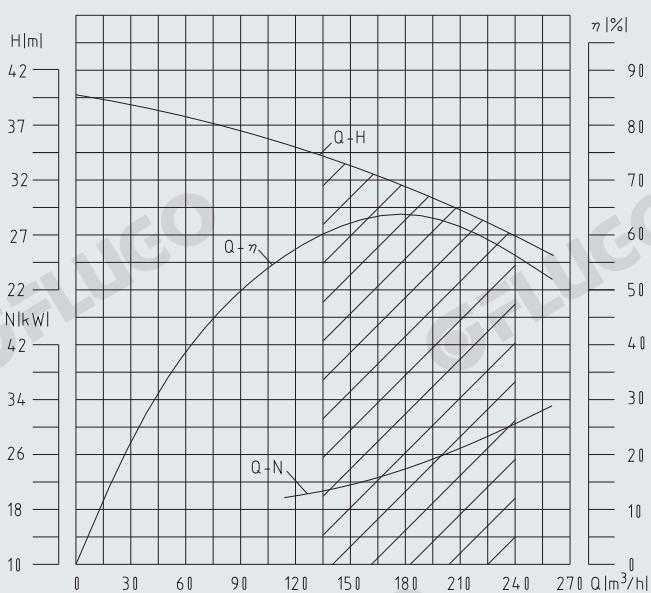
- Materials**  
QT600-3, Cast iron, Hard iron, Bronze, High chrome, Stainless steel
- Option Arrangement**  
Stuffing box, Mechanical seal
- Impeller**  
Closed type, Open type or Semi-open  
Impeller Diameter from 7.5 inch to 13 inch.
- Casing**  
Hard iron, Ductile hard iron, Bronze, Cast iron, Stainless steel
- Mechanical Seal**  
Tungsten Carbide, etc
- Shaft Sleeve**  
SS416, SS316, Ceramic
- Gland Packing**  
Graphite, Acrylic, Asbestos, PTFE, Glass fibre, Carbon fibre, Arimid fiber, Latty 4777

## Accessory Options

(available on request)

- Drive Arrangement**  
Direct Connect drive type  
Pulley & Belt drive type
- Inlet & Outlet Flanges.
- Electric Motor, Diesel Engine
- VFD, Soft Starter etc
- Additional Customised Options.

## Operating Curve



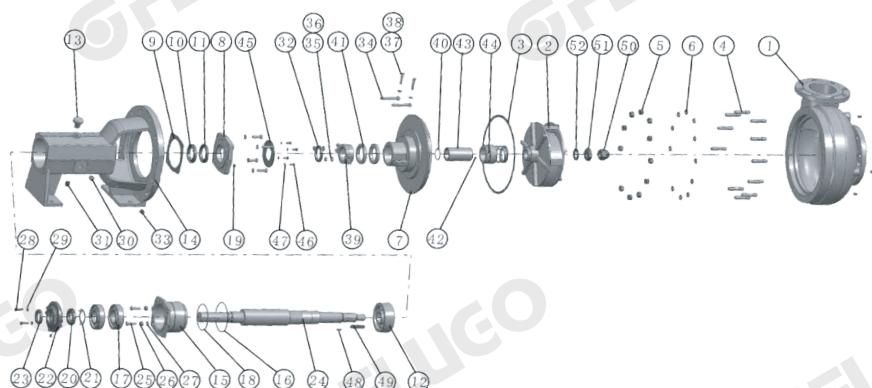
## Technical Data

Model	FSP5x6J-12
Capacity Q (m³/h)	180
Head H (m)	31
Speed n (rpm)	1780 60Hz
Motor Power (kw)	37
Eff η (%)	63
Ex.class	ExdbIIBT4
Impeller Type	Open

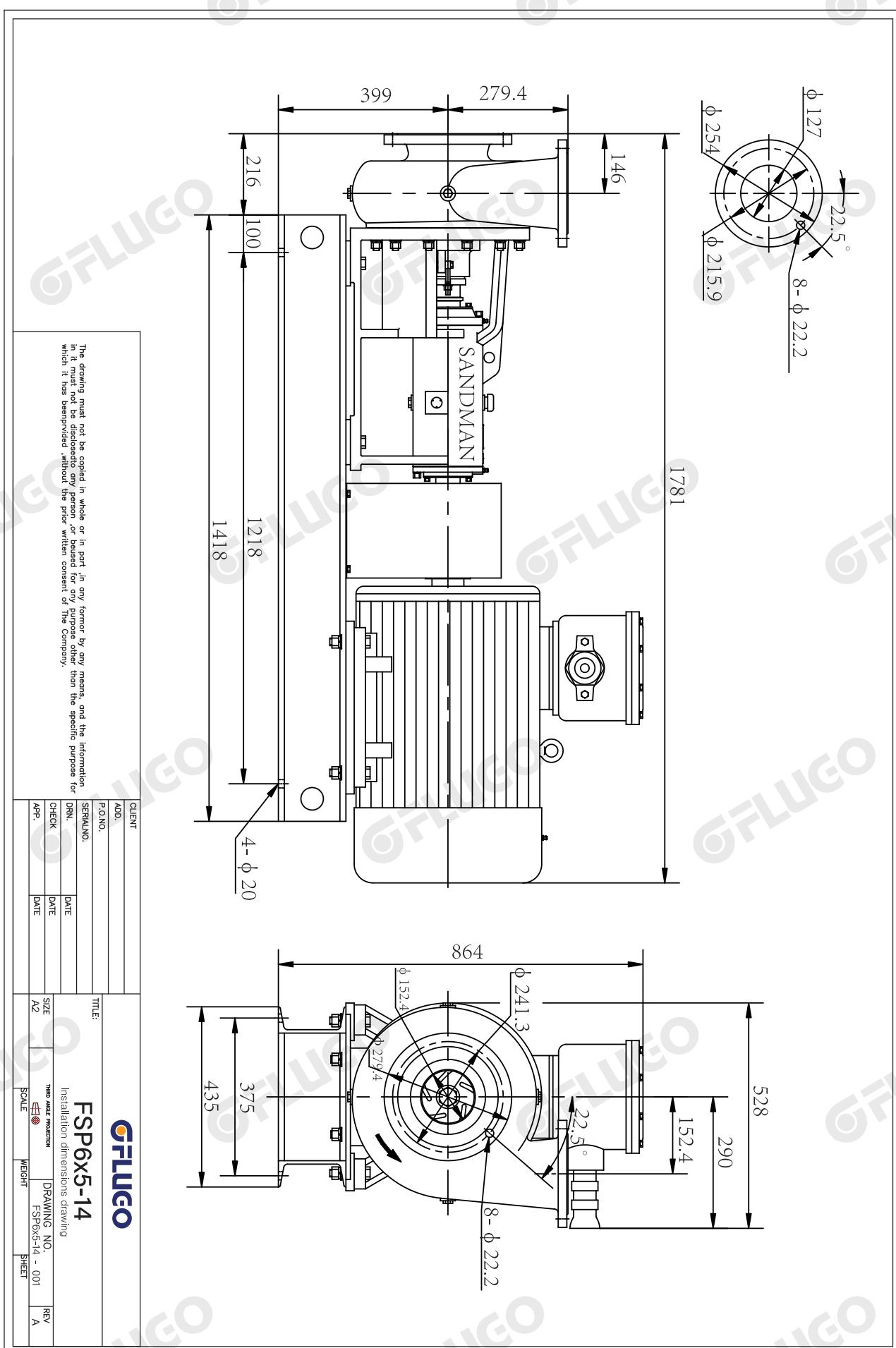
## Standard Material Configuration

Impeller	Hard Iron
Casing	Hard Iron
Mechanical Seal	Tungsten Carbide
Shaft Sleeve	SS416
Shaft	AISI4140
Bearings	Vendor

## Structural Drawing



Item	Part Name & Specification	Part No.	Qty	Item	Part Name & Specification	Part No.	Qty
1	Case	FSP56J000	1	27	Spring washer	FSP56J0027	6
2	Impeller-J	FSP56J0002	1	28	Screw bolts	FSP56J0028	4
3	Paper gasket-J	FSP56J0003	1	29	Spring washer	FSP56J0029	4
4	Stud	FSP56J0004	12	30	Oil gauge	FSP56J0030	1
5	Nuts	FSP56J0005	12	31	Plug	FSP56J0031	5
6	Spring washer	FSP56J0006	12	32	Slinger	FSP56J0032	1
7	Cover of seal	FSP56J0007	1	33	Plug	FSP56J0033	2
8	Cover, inboard	FSP56J0008	1	34	Gland bolt	FSP56J0034	2
9	Paper gasket	FSP56J0009	1	35	Nuts	FSP56J0035	2
10	Oil seal	FSP56J0010	1	36	Washer	FSP56J0036	2
11	Oil seal	FSP56J0011	1	37	Screw bolts	FSP56J0037	2
12	Bearing	FSP56J0012	2	38	Washer	FSP56J0038	2
13	Oil cover	FSP56J0013	1	39	Packing gland set	FSP56J0039	1
14	Frame	FSP56J0014	1	40	O-ring	FSP56J0040	1
15	Bearing house	FSP56J0015	1	41	Packing	FSP56J0041	2
16	O-ring	FSP56J0016	1	42	Pin	FSP56J0042	1
17	Bearing	FSP56J0017	2	43	Sleeve,shaft	FSP56J0043	1
18	O-ring	FSP56J0018	1	44	Mechanical seal	FSP56J0044	1
19	Grease cup	FSP56J0019	2	45	Cover	FSP56J0045	1
20	Lock nut	FSP56J0020	1	46	Screw bolts	FSP56J0046	4
21	Lock washer	FSP56J0021	1	47	Spring washer	FSP56J0047	4
22	Cvoer,out board	FSP56J0022	1	48	Key	FSP56J0048	1
23	Oil seal	FSP56J0023	1	49	Key	FSP56J0049	1
24	Shaft-J	FSP56J0024	1	50	Cap nuts M30X2-LH	FSP56J0050	1
25	Screw bolts	FSP56J0025	8	51	Nuts M30X2-LH	FSP56J0051	1
26	Nuts	FSP56J0026	4	52	Washer	FSP56J0052	1





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Authorized Distributor