

**TECHNICAL SPECIFICATIONS FOR**

**SJS-18000 Series**

CRANKSHAFT SPEED (@475 RPM)				POWER INPUT (CRANK SHAFT TEETH = 61; PINON TEETH = 20; GEAR RATIO = 1:3)				
MODEL	PLUNGER IN MM	LPM	GPM	75 HP	100 HP	125 HP	150 HP	175 HP
				MAX.PRESSURE (Kg/cm <sup>2</sup> ) @ POWER (HP)				
18018	18	38	9	840	1035	1235	1470	1750
18020	20	47	12	695	850	1010	1220	1430
18024	24	68	16	480	600	720	860	1000
18026	26	79	19	405	515	620	760	845
18028	28	92	22	355	445	580	655	730
18030	30	106	25	305	390	460	565	635
18032	32	120	29	270	340	410	500	560
18036	36	152	36	205	260	310	380	440
18040	40	170	45	165	205	243	300	355
18045	45	215	57	130	160	195	235	280
18050	50	269	71	105	130	155	190	225
18055	55	325	86	90	100	130	160	185
18060	60	387	102	70	95	110	135	155

**I. Power End:**

Manufactured from High strength grey cast Iron Power End housing, containing Induction hardened Alloy steel Crank shaft, driven by means of built in helical gears & pinion drive which is supported by cylindrical Roller Bearing at both ends. Connecting rod machined from S. G. Iron with automotive type Split insert Big & Shell

**II. Fluid End:**

Ultrasonically tested forged S.S Pump head ensures safe operation at High pressure. Stainless-Steel Spring-loaded Valve & Valve seat for positive closing & Opening are machined, heat treated & grounded. Surface finishes for longer Seal & Plunger life. Teflon/PTFE made & easily replaceable Plunger seal in the Stainless-Steel Stuffing box.

**III. Motor:**

**OFFICE:** 11, BLOCK-22, SPRING FIELD COLONY  
SEC-32, FARIDABAD -121003, HARYANA

**WORKS:** PLOT No. 78,  
VISHWAKARMA IND. AREA,  
PALI-BHAKRI ROAD, FARIDABAD-121001  
HARYANA

**E-MAIL:** STERLINGJETTING.SYSTEMS@GMAIL.COM  
VATS.SHIVAM@STERLINGJETTING.IN  
CONNECT@STERLINGJETTING.IN  
**PHONE:** 0129-2984894, +91-9818844894

1. Type - TEFC, Squirrel Cage Induction
  2. Rating- Suitable For 415 V +/- 10%, 3 Phase 50 Hz +
  3. Mounting – Foot Mounted
  4. Temperature- Ambient Temp. 40 Deg. C, Class
  5. Standard- As per IS: 325
  6. Make - KIRLOKAR/ ABB/ SIEMENS
- IV. **Electric Control Panel:** Non-F.L.P Type, Trolley mounted with standard makes fitting & accessories.
- V. **Trolley:** M.S Fabricated, Tow- able with swivel arrangement four wheels Trolley.
- VI. **Safety:** Spring-loaded High-Pressure relief valve
- VII. **Filtration Unit:** Basket Type 100 Micron
- VIII. **Booster Feed Pump:** Horizontal Centrifugal, Kirloskar Make
- IX. **Pressure Gauge:** 0 to 1000 BAR, Glycerin Filled 4" S.S Dial, ¼" BSP Bottom Connection
- X. **Oil Pump:** Dowety Make Gear Type
- XI. **Oil Cooler:** Shell & Tube Type Oil Cooler
- XII. **Coupling:** H. P. Pump & Motor Coupling Type
- XIII. **Pressure Regulating Valve:** Spring Loaded, Stepless Type 0 to 1000

S.NO	PARTICULARS	DESCRIPTION
1	Manufacturer	Sterling Jetting Systems
2	Type	Triplex Plunger Pump
3	Series	SJS- 18000
4	Pump Design Standard	Api 674
7	Pump Speed (Strokes Per Minute)	475
9	Volumetric Efficiency at Rated Flow Capacity	-10%
17	Pump Efficiency at Rapid Flow Capacity at Design Pressure	90%
18	Motor Efficiency at Rated Pump Capacity at Design Pressure	94.8%
19	Overall Efficiency at Pump with Motor (Pump $\eta$ $\times$ Motor $\eta$ )	95%
22	Size Of Suction Connection	4 Inches

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23	Size Of Discharge Connection	2 Inches
	Material Of Construction (Material Standard with Grade)	SS – 304
24	Pump Body	Ci
25	Pump Head	Ss
26	Plunger	Ceramic
27	Plunger Surface Treatment	Heated
28	Cross Head & Liner	Ci & Ss
29	Connecting Rod	Ci And Ss
30	Connecting Rod Bearings	P. B
31	Crank Shaft	Carbon Steel
32	Crankshaft Bearing No.	Nv-2214-22316
33	Stuffing Box	Ss-304
34	Stuffing Box Packing	PTFE – Gland Type
35	Suction Manifold	Aluminum
36	Discharge Manifold	S. S
37	Pulsation Dampener	Fabricated
38	Suction Strainer	S. S
39	Bolts, Nuts and Fasteners	High Tensile
40	Base Plate/ Frame	Fabricated
41	Valves And Valve Seat	Heat Treated – S. S
42	Gear Box	In-Built Gear Box Pin Bush Type
43	Type Of Lubrication	Forced Lubrication
44	Oil Specification	150 Vg 320-25 Liter
45	Oil Pump Capacity	35 Lpm
46	No Of Stages, Reduction Ratio	Single Stage, 1:3
47	Coupling Type	Pin Bush

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48	Coupling Guard	Yes
49	Valves And Gauges	Dial Gauge Glycerin Field
50	Suction Strainer Mesh Size	400 Micron
51	Total Weight	3 T
52	Base Frame Plate Thickness	10 Mm
53	Foundation Bolt Size	M20

### DO's

1. Before starting the H.P. Pump, check oil level in crank case & to be maintained & changed as per O & M manual.
2. Electrical connection should be proper.
3. Electrical motor rotation should be Clockwise from Fan side.
4. All high pressure hoses & adaptors connections should be proper tightened.
5. Water suction pressure should be 2-4 BAR.
6. Water Filter should be cleaned before starting the pump.
7. Safety Valve testing to be done once in 2 to 3 months.
8. Ensure continuous flow of filtered water with 40-80 Microns Filtration level.
9. Use proper & recommended Nozzle.
10. Stop H. P. Pump immediately if there is any leakage in discharge & abnormal sound during the operation.
11. H. P. Pump operation must be as per O & M manual.
12. All Hoses / Flexible Lances should be avoided in contact with sharp corners.
13. No leakage in Suction & Discharge is acceptable during operation.
14. All Pressure / Temperature switches to be checked periodically.

### DONT's

1. Don't start the H. P. Pump in load condition.
2. Don't wear loose clothes while attending the pump.
3. Pressure Switches should not be bypassed.
4. Damaged H. P. Hoses should not be used & to be replaced.
5. Avoid over tightening of Pressure Regulator.

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