



DIESEL DRIVEN PUMP SPS TDP 12”



DESIGN SPECIFICATIONS

Suction Connection	300 mm / 12 inch
Delivery Connection	300 mm / 12 inch
Solid Handling	100 mm / 4 inch
Max. Head / Max. Flow	62 mtr / 1400 m ³ /hr
Engine Bell Housing	SAE3 / SAE1
Engine Fly Wheel	10 inch / 14 inch
Max. Impeller Diameter	359 mm
Priming	120 CFM / 800 RPM
Best Efficiency Point	
Head and Flow	42 mtr / 1000 m ³ /hr

MATERIAL OF CONSTRUCTION

STANDARDS	MATERIAL	STANDARDS	MATERIAL
Impeller	SS 316L	Front Wear Plate	SS 316L
Tee Piece	SG 500/7	Rear Back Plate	SG 500/7
Air & Water Separator	SG 500/7	Pump Shaft	SS 431 / Duplex
Pump Casing (Volute)	SG Iron 500/7	Mechanical Seal	SIC - Viton
Back Plate	SG 500/7	Bearing Housing	FG260
Bell Housing to engine	FG260	Coupling	SAE 1,2,3
Bell Housing to Volute	FG 260	Non Return Valve	Cast Iron



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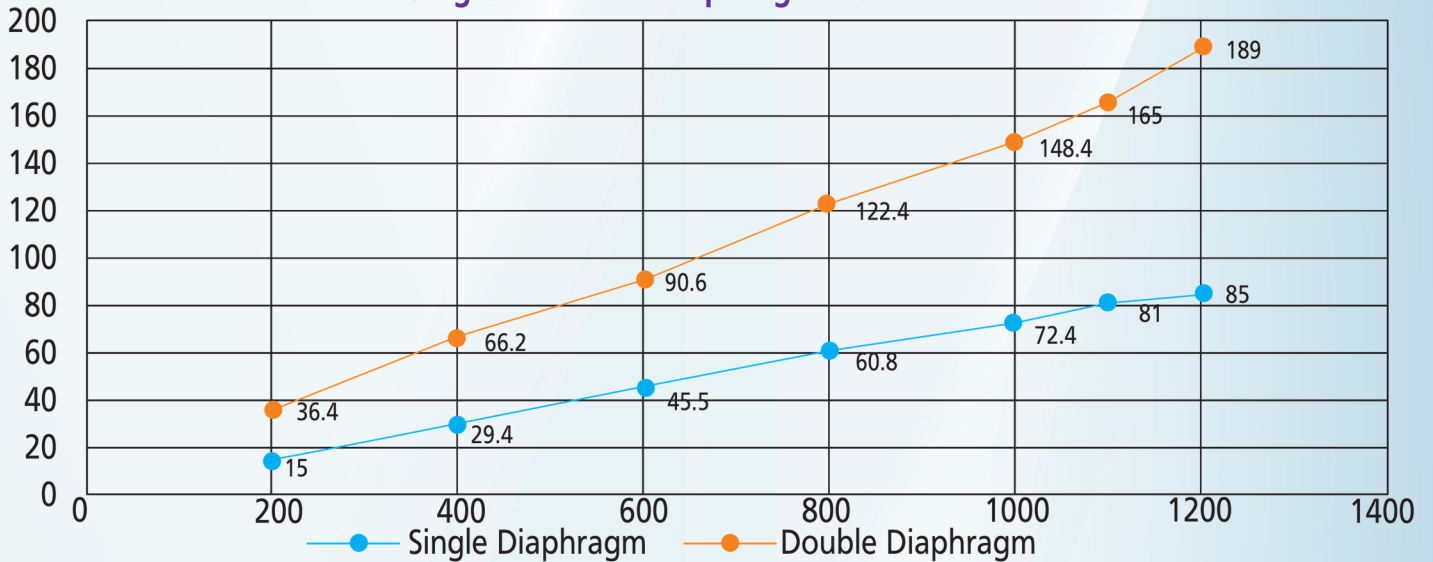


Single Diaphragm



Twin Diaphragm

Single and Twin Diaphragm Flow vs CFM



Priming time 60 cfm

Pipe internal diameter mm	Area m ²	60cfm Volume pumps m ³ /sec	Pipe fluid speed m/sec	time for priming in seconds								
				10m	20m	30m	40m	50m	60m	100m	200m	300m
80	0.005029	0.02359	4.691193	2.13	4.26	6.39	8.53	10.66	12.79	21.32	42.63	63.95
100	0.007857	0.02359	3.002364	3.33	6.66	9.99	13.32	16.65	19.98	33.31	66.61	99.92
150	0.017679	0.02359	1.334384	7.49	14.99	22.48	29.98	37.47	44.96	74.94	149.88	224.82
200	0.031429	0.02359	0.750591	13.32	26.65	39.97	53.29	66.61	79.94	133.23	266.46	399.69

Priming time 120 cfm

Pipe internal diameter mm	Area m ²	120cfm Volume pumps m ³ /sec	Pipe fluid speed m/sec	time for priming in seconds								
				10m	20m	30m	40m	50m	60m	100m	200m	300m
80	0.005029	0.04718	9.382386	1.07	2.13	3.20	4.26	5.33	6.39	10.66	21.32	31.97
100	0.007857	0.04718	6.004727	1.67	3.33	5.00	6.66	8.33	9.99	16.65	33.31	49.96
150	0.017679	0.04718	2.668768	3.75	7.49	11.24	14.99	18.74	22.48	37.47	74.94	112.41
200	0.031429	0.04718	1.501182	6.66	13.32	19.98	26.65	33.31	39.97	66.61	133.23	199.84



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LOW HEAD DISCHARGE (DUTY POINT - 42 MTR @ 1000 M3/HR)

Pump Type	Dewatering (Surface)	No. of Stages in Pump	1
Engine Rating	160 Kw	Max. Solid Handling	100 mm / 4''
Speed	1800 rpm	Method of Coupling	SAE 3/10
Model	SPS TDP 12''	Total Head	62 mtr
Type of Impeller	Closed	Max Discharge	1400 m ³ /hr
Max. Impeller Dia.	359 mm	Impeller Dia.	359 mm
Delivery Size	300 mm	Speed Range	1500 to 1800 rpm
Suction Size	300 mm	Efficiency	75 %

