

Oswal SS Submersible V6

Stainless-steel 6" submersible pumps for 4", 6" and 8" motors · OSP-46 / OSP-60

AT A GLANCE

- Fully fabricated AISI 304 stainless steel
- One 6" pump end for 4", 6" and 8" motors
- Flow 24–72 m³/h (400–1,200 L/min)
- Head up to 496 m (8" motor)
- 2–75 HP (1.5–55 kW) · 4" outlet
- Stop ring and built-in non-return valve

V6



Look at the range we have for energy saving

6" pumps for 4" · 6" · 8" motors · 66 ratings

46 · 60

m³/h nominal duty

24–72 m³/h

flow range

496 m

max. head

1.5–55 kW

2–75 HP

MANUFACTURED BY

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ISO 9001:2015

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SS PUMP OSP-46 / 60

Energy-efficient 6" stainless-steel submersibles

Oswal submersible pumps and motors are well known for their quality, reliability and excellence in every type of service. They are manufactured under the supervision of a highly qualified technical team, with stage-wise rigorous inspection under TQM concepts, and are backed by excellent after-sales service.

Applications include hospitals, water-circulation systems, government water-supply schemes, irrigation, farms, drip and sprinkler irrigation, gardening, nurseries, domestic water supply, multi-storeyed buildings, industrial water-supply systems and hotels.

Oswal has developed energy-efficient, cost-effective pumps of fully fabricated AISI 304 stainless steel to international quality levels, and exports pump sets to developed countries. The pump sets are of modular design for under-water operation and universal fit; all mounting dimensions of pumps and motors follow NEMA standards. Fabricated construction keeps them light and easy to handle and gives a long service life.

Oswal water-filled and 8" water-cooled submersible motors conform to **IS 9283**; pump sets conform to **IS 8034**.

General data

Duty range	800–1,000 L/min (48–60 m ³ /h)
Flow rate Q	24–72 m ³ /h
Max. head (H)	322 m on 6" motor · 496 m on 8" motor (see note)
Pumped liquid	Clean, thin, non-aggressive water, free from solids, chemically neutral
Max. liquid temperature	35 °C (see note)
Max. sand content	40 g/m ³
Min. suction head required	1.5 m
Starts per hour	15–20 max.
Operating pressure	67 bar max.

Construction & connection

Type	OSP 46	OSP 60
Steel	AISI 304	AISI 304
Connection Rp · BSP thread	4"	4"
Connection Rp · NPT thread	4"	4"

Max. liquid temperature by installation

Motor	Flow velocity past motor	Vertical	Horizontal
6"	0.15 m/s	40 °C	40 °C

Note: General data gives 35 °C; this table gives 40 °C at ≥ 0.15 m/s cooling flow past the motor. Source printed max. head 320 m — that is the 6"-motor range; the 8"-motor sets in the same leaflet reach 496 m.

Model type key — example OSP 6 46 2 B B

OSP Model type	6 Motor size: 4", 6" or 8" motor with 6" pump	46 Nominal flow, m ³ /h (× 16.67 = L/min)
2 Number of impellers (stages)	B 1st impeller with reduced diameter (A, B, C)	B 2nd impeller with reduced diameter (A, B, C)



FABRICATED AISI 304 STAINLESS-STEEL COMPONENTS

FEATURES AND BENEFITS

Built for duty, designed for efficiency

A wide pump range

Energy-efficient duty points from 46 to 60 m³/h, with many pump sizes (stages and impeller trims) to match any duty point.

Low installation cost

Low weight eases handling and cuts equipment cost, installation and service time; high wear resistance means pumps are as good as new after service.

High pump efficiency

Pump and motor efficiency is often neglected in favour of purchase price — yet it decides the running cost for the life of the pump.

Bearings with sand channels

All bearings are water-lubricated and have an octagonal shape with channels that let sand particles pass.

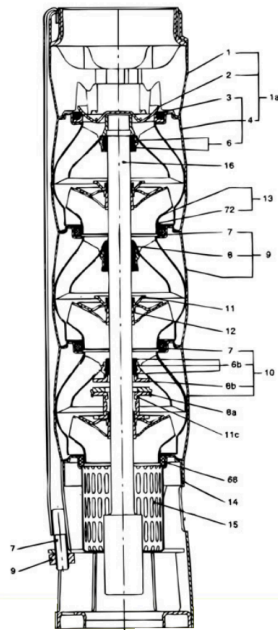
Stainless steel throughout

All wetted parts in AISI 304 for good wear resistance and a reduced risk of corrosion with ordinary cold water containing a little chloride.

Stop ring

Designed as a thrust bearing, the stop ring limits axial shaft movement and protects the pump against up-thrust at start-up and in transport. Stationary part (A) sits in the top bowl; rotating part (B) above the split cone (C).

Example: pumping 46 m³/h against 60 m head, a stainless-steel energy-efficient pump saves about 4 kWh every hour compared with other pumps — around **₹4,60,000 in 10 years** at 8 hours' running a day.



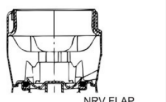
SECTIONAL DRAWING · OSP-46 / 60



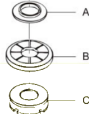
BEARING WITH SAND CHANNELS



INLET STRAINER



NON-RETURN VALVE



STOP RING A · B · C

† Strainer printed as AISI 316 and pump shaft as 304 — the reverse of the sister OSP leaflets; kept as printed, confirm with factory.

Material specification OSP-46 / 60

No.	Component	Material	Grade
1	Valve casing	Stainless steel	304
1a	Discharge chamber, complete	Stainless steel	304
2	Valve cup	Stainless steel	304
3	Valve seat	Stainless steel + NBR	
4	Top chamber	Stainless steel	304
6	Upper bearing	NBR	
	Cap (upper bearing)	Stainless steel	304
6b	Lower bearing	NBR	
	Cap (lower bearing)	Stainless steel	304
7	Neck ring	NBR / stainless steel	
8	Bearing	NBR	
8a	Washer for stop ring	Carbon/graphite HY22 in PTFE mass	
8b	Stop ring	Stainless steel	304
9	Intermediate chamber	Stainless steel	304
10	Bottom chamber, complete	Stainless steel	304
11	Split-cone nut	Stainless steel	304
11c	Nut for stop ring	Stainless steel	304
12	Split cone	Stainless steel	304
13	Impeller	Stainless steel	304
14	Suction interconnector	Stainless steel	304
15	Strainer	Stainless steel	316 †
16	Pump shaft	Stainless steel	304
17	Strap	Stainless steel	304
18	Cable guard	Stainless steel	304
18a	Cheese-head screw for cable guard	Stainless steel	304
19	Nut	Stainless steel	304
19a	Nut	Stainless steel	304
23	Rubber guard	Rubber	
68	Bottom neck ring	NBR / stainless steel	
72	Wear ring	Stainless steel	304
78	Nameplate	Stainless steel	304

6" pump · 4"/6"/8" motor

OSP-46

Performance · 4" · 6" · 8" motors

NOMINAL
46 m³/hFLOW
24–60 m³/hMAX. HEAD
496 mPOWER
2.2–55 kWOUTLET
4"RATINGS
35

PUMP · MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

Stages	HP	kW	4"	6"	8"	0 m ³ /h	24	36	48	60
						0 L/min	400	600	800	1000
1	3	2.2	●	●	–	13.4	11.6	10	8.1	5
2-BB	3	2.2	●	●	–	19	16	13.5	8.5	1
2	4	3.0	●	●	–	27	23	20	16	10
3-C	5	3.7	●	●	–	36	30	26	19	10
3	6	4.5	●	●	–	38	33	29	23	14
3	7.5	5.5	–	●	–	40	35	30	24	15
4-C	7.5	5.5	–	●	–	48.5	42	36	27	15
4	10	7.5	–	●	–	54	46	40	32	20
5	10	7.5	–	●	–	67	58	50	41	25
6	12.5	9.3	–	●	–	80	70	60	49	30
7	15	11	–	●	–	94	81	70	57	35
8-C	15	11	–	●	–	103	88	76	60	35
8	17.5	13	–	●	–	107	93	80	65	40
9-C	17.5	13	–	●	–	116	100	86	68	40
10	20	15	–	●	–	134	116	100	81	50
11	25	18.5	–	●	–	147	128	110	89	55
12	25	18.5	–	●	–	161	139	120	97	60
13	30	22	–	●	–	174	151	130	105	65
14	30	22	–	●	–	188	162	140	113	70
15	30	22	–	●	–	201	174	150	122	75
16	35	26	–	●	–	214	186	160	130	80
17	35	26	–	●	–	228	197	170	138	85
18	40	30	–	●	–	241	209	180	146	90
19	40	30	–	●	–	255	220	190	154	95
20	40	30	–	●	–	268	232	200	162	100
21	50	37	–	●	–	281	244	210	170	105
22	50	37	–	●	–	295	255	220	178	110
23	50	37	–	●	–	308	267	230	186	115
24	50	37	–	●	–	322	278	240	194	120
26	60	45	–	–	●	348	302	260	211	130
28	60	45	–	–	●	375	325	280	227	140
30	60	45	–	–	●	402	348	300	243	150
33	75	55	–	–	●	442	383	330	267	165
35	75	55	–	–	●	469	406	350	284	175
37	75	55	–	–	●	496	429	370	300	185

● = available with that motor size (OSP4-46 / OSP6-46 / OSP8-46). Heads in metres; bold column = duty point 48 m³/h (800 L/min). Speed approx. 2850 min⁻¹; tolerances ISO 9906 Annex A. 50 Hz.

Flagged: 3-C shut-off head is 35.5 m in the OSP4-46 table and 36 m in the OSP6-46 table — 36 m shown. 2-BB drops to 1 m at 60 m³/h in both tables (as printed).

6" pump · 4"/6"/8" motor

OSP-60

Performance · 4" · 6" · 8" motors

NOMINAL
60 m³/hFLOW
24–72 m³/hMAX. HEAD
426 mPOWER
1.5–55 kWOUTLET
4"RATINGS
31

PUMP · MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

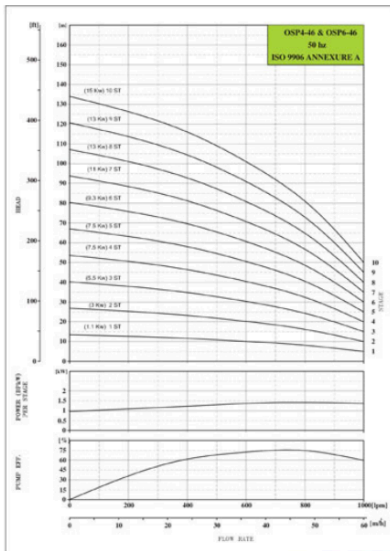
Stages	HP	kW	4"	6"	8"	0 m³/h	24	36	48	60	72
						0 L/min	400	600	800	1000	1200
1-A	2	1.5	●	–	–	11	9	7	6	4	0
1	3	2.2	●	●	–	14.2	12.8	11	9.4	7.7	5.5
2-B	4	3.0	●	●	–	20.5	19.5	16	13.5	10	5.5
2	5	3.7	●	●	–	28	26	22	19	15	11
2	6	4.5	●	●	–	29	27	23	20	16	12
3	7.5	5.5	–	●	–	43	38	33	28	23	17
4	10	7.5	–	●	–	57	51	44	38	31	22
5	12.5	9.3	–	●	–	71	64	55	47	39	28
6	15	11.0	–	●	–	85	77	66	56	46	33
7	17.5	13.0	–	●	–	99	90	77	66	54	39
8-B	17.5	13.0	–	●	–	106	97	82	70	56	39
8	20	15	–	●	–	114	102	88	75	62	44
9-B	20	15	–	●	–	121	109	93	79	64	44
9	25	18.5	–	●	–	128	115	99	85	69	50
10	25	18.5	–	●	–	142	128	110	94	77	55
11	30	22	–	●	–	156	141	121	103	85	61
12	30	22	–	●	–	170	154	132	113	92	66
13	35	26	–	●	–	185	166	143	122	100	72
14	35	26	–	●	–	199	179	154	132	108	77
15	35	26	–	●	–	213	192	165	141	116	83
16	40	30	–	●	–	227	205	176	150	123	88
17	40	30	–	●	–	241	218	187	160	131	94
18	50	37	–	●	–	256	230	198	169	139	99
19	50	37	–	●	–	270	243	209	179	146	105
20	50	37	–	●	–	284	256	220	188	154	110
21	50	37	–	●	–	298	269	231	197	162	116
22	60	45	–	–	●	312	282	242	207	169	121
24	60	45	–	–	●	341	307	264	226	185	132
26	60	55	–	–	●	369	333	286	244	200	143
28	75	55	–	–	●	398	358	308	263	216	154
30	75	55	–	–	●	426	384	330	282	231	165

● = available with that motor size. Bold column = duty point 60 m³/h (1,000 L/min).

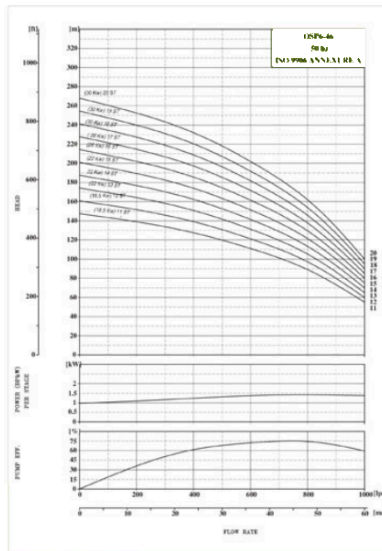
Corrected (red): OSP8-60 26-stage shut-off head printed 269 m → 369 m (lower than the 24-stage pump; series rises ≈ 28.5 m per 2 stages). **Flagged:** the same row reads 60 HP with a 55 kW motor (55 kW = 75 HP) — confirm rating with factory.

OSP-46

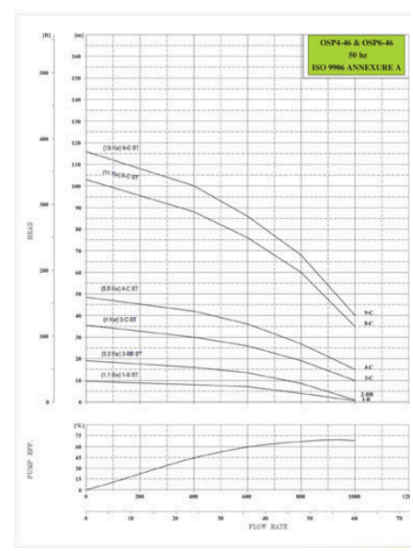
— Head, power per stage and pump efficiency · 50 Hz · ISO 9906 Annex A



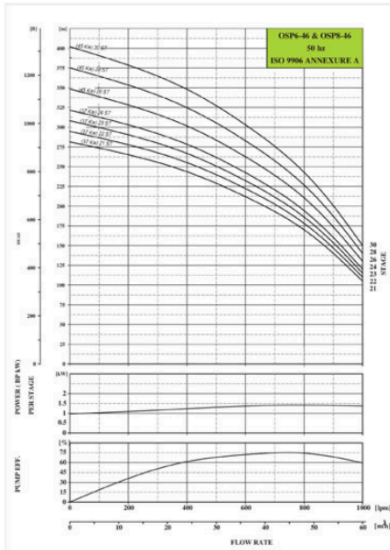
OSP4-46 & OSP6-46 · 1-10 STAGES



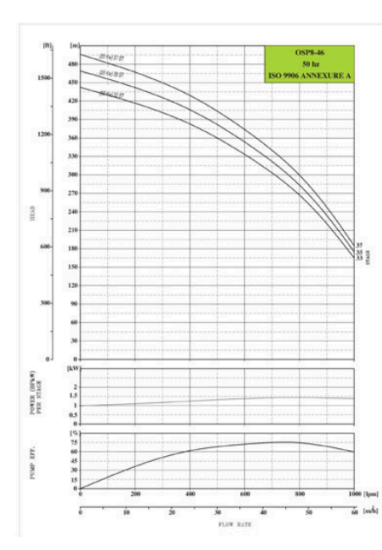
OSP6-46 · 11-24 STAGES



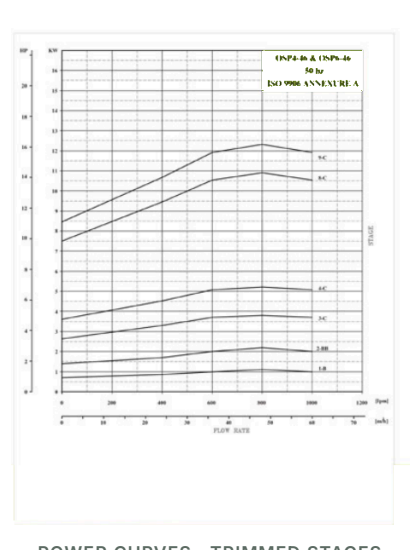
TRIMMED IMPELLERS (B / C)



OSP6-46 & OSP8-46 · 22-30 STAGES



OSP8-46 · 33-37 STAGES



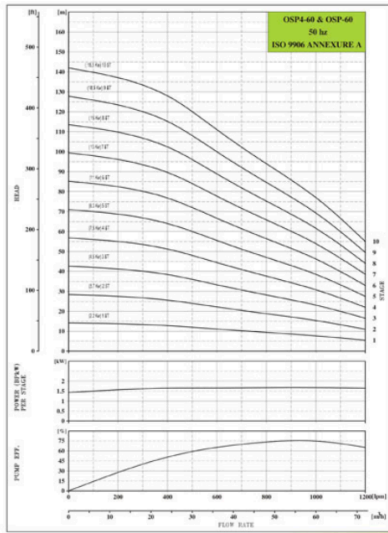
POWER CURVES · TRIMMED STAGES

Curve conditions

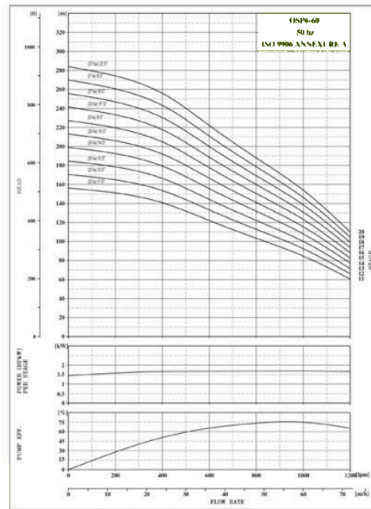
- **Q/H:** curves include losses such as non-return-valve losses at actual speed. Operation without the NRV raises the actual head at nominal performance by 0.5-1.0 m.
- **Power curve:** shaft power (BkW) per stage.
- **Efficiency curve:** pump-stage efficiency.
- Curve tolerances to **ISO 9906, Annex A**. Curves show performance at the actual speed of the standard motor range (approx. 2850 min⁻¹).
- Measured with airless water at 20 °C, kinematic viscosity 1 mm²/s. For liquids denser than water, use motors with correspondingly higher output.
- Bold curves indicate the recommended performance range.

OSP-60

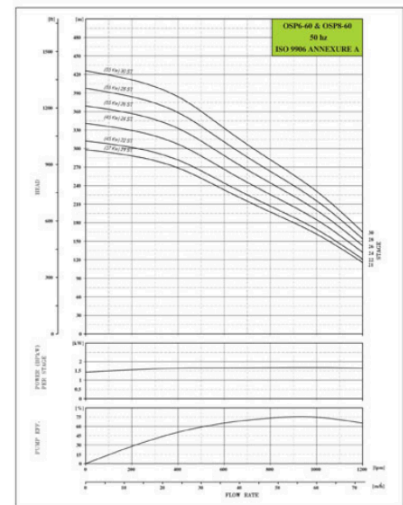
— Head, power per stage and pump efficiency · 50 Hz · ISO 9906 Annex A



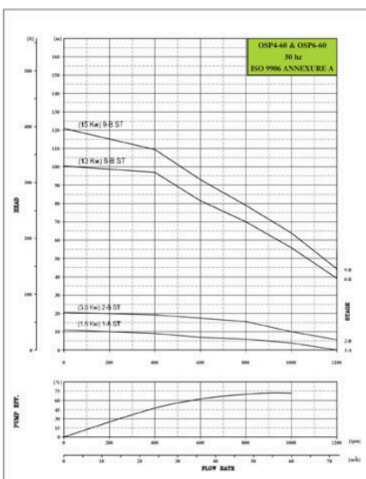
OSP4-60 & OSP6-60 · 1-10 STAGES



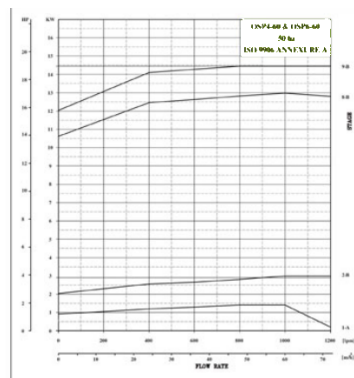
OSP6-60 · 11-21 STAGES



OSP6-60 & OSP8-60 · 20-30 STAGES



TRIMMED IMPELLERS (A / B)



POWER CURVES · TRIMMED STAGES

Warranty: 12 months as per our standard terms and conditions mentioned in the quotation / offer. The manufacturer reserves the right to change the design and specification without prior notice.