

Oswal SS Submersible 4"

Stainless-steel 4" submersible pumps for 4" motors · OSP-2 · 3 · 5 · 8 · 14

AT A GLANCE

- Fully fabricated AISI 304 stainless steel
- Five hydraulics, 2 to 14 m³/h nominal
- Flow 1–18 m³/h (17–300 L/min)
- Head up to 522 m
- 0.5–7.5 HP (0.37–5.5 kW)
- 1¼" · 1½" · 2" outlet



V4

Look at the range we have for energy saving

4" pumps for 4" motors · 53 ratings

2 · 3 · 5 · 8 · 14

m³/h nominal duty

1–18 m³/h

flow range

522 m

max. head

0.37–5.5 kW

0.5–7.5 HP

MANUFACTURED BY

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ISO 9001:2015

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SS PUMP OSP-2 / 3 / 5 / 8 / 14

Stainless-steel 4" submersibles for deep wells

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 4" pumps are of modular design for under-water operation and universal fit: all mounting dimensions of pumps and motors follow NEMA standards, and the pumps are fully fabricated from AISI 304 stainless steel — light, easy to handle and long-lived. Oswal water-filled submersible motors conform to **IS 9283**; pump sets conform to **IS 8034**.

General data

Duty range	30–235 L/min
Flow rate Q	1–18 m ³ /h
Max. head (H)	522 m (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 (see note)
Min. suction head required	1.5 m
Starts per hour	15–20 max. (see note)
Operating pressure	67 bar max.

Construction & connection

Type	OSP 2	OSP 3	OSP 5	OSP 8	OSP 14
Steel	304	304	304	304	304
Rp · BSP thread	1¼"	1½"	1½"	2"	2"
Rp · NPT thread	1¼"	1½"	1½"	2"	2"

Model type key — example OSP 14

OSP

Model type: Oswal stainless-steel pump

14

Nominal flow, m³/h (× 16.67 = L/min)

Max. liquid temperature by installation

Motor	Flow velocity past motor	Vertical	Horizontal
4"	0.15 m/s	40 °C	40 °C

Note: source also prints 45 °C, 50 g/m³ sand and 30 starts/h elsewhere — the lower values are shown; confirm with factory. Max. head printed 350 m; OSP-2 · 90 stages gives 522 m.

Construction

- Pump and motor for 4" (100 mm) deep wells
- All sizes to NEMA standards
- Completely made of AISI 304 stainless steel
- Radial flow: OSP-2, 3, 5 · Mixed flow: OSP-8, 14
- NPT connection on request

Applications

- Domestic and municipal water supply
- Irrigation, drip and sprinkler
- Civil and industrial applications
- Fire-fighting

Operation

- Rotation: clockwise seen from the pump coupling side
- Motor speed approx. 2850 min⁻¹ (4" motors)
- Cooling flow ≥ 0.15 m/s past the motor

FEATURES AND BENEFITS

Built for duty, designed for efficiency

A wide pump range

Energy-efficient duty points from 2 to 14 m³/h, with many pump sizes (stages) 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.

Radial & mixed flow

Radial-flow hydraulics on OSP-2, OSP-3 and OSP-5; mixed-flow hydraulics on OSP-8 and OSP-14.

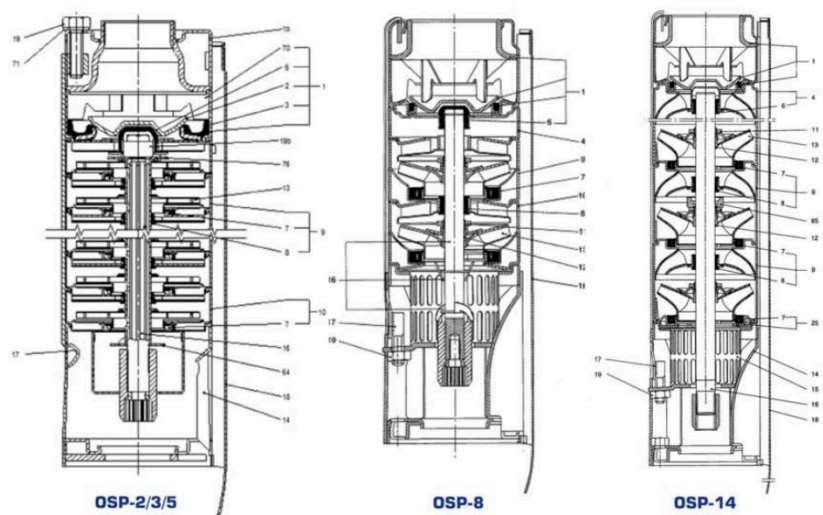
Stainless steel throughout

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

NEMA 4" fit

All sizes to NEMA standards for 4" (100 mm) motors and deep wells; NPT connection available on request.

Example: pumping 14 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 (as printed — see CHANGES).



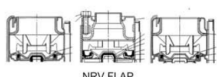
SECTIONAL DRAWINGS · OSP-2/3/5 (RADIAL FLOW) · OSP-8 · OSP-14 (MIXED FLOW)



BEARING WITH SAND CHANNELS



INLET STRAINER



NON-RETURN VALVE FLAP



STOP RING (E.G. OSP-14)

Material specification OSP-2 · 3 · 5 · 8 · 14

No.	Component	Material	Grade
1	Valve casing	Stainless steel	304
4	Top diffuser cup	Stainless steel	304
6	Top bearing bush	NBR	
7	Neck ring	NBR + stainless steel	304
8	Stage bearing bush	NBR	
9	Diffuser cup	Stainless steel	304
10	1st-stage cup	Stainless steel	304
11	Split-cone nut	Stainless steel	304
12	Split cone	Stainless steel	304
13	Impeller	Stainless steel	304
14	Suction case	Stainless steel	304
15	Strainer	Stainless steel	304
16	Pump shaft, complete	Stainless steel	304
17	Strap	Stainless steel	304
18	Cable guard	Stainless steel	304
19	Nut	Stainless steel	304
19a	Nut	Stainless steel	304

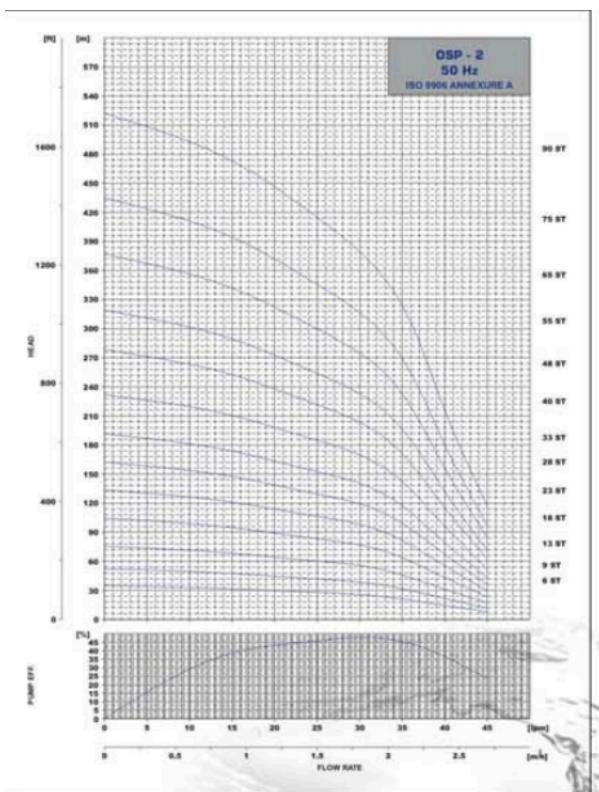
4" pump · 4" motor

OSP-2

Performance · 4" motor

NOMINAL
2 m³/hFLOW
1–2.7 m³/hMAX. HEAD
522 mPOWER
0.37–4.5 kWOUTLET
1½"RATINGS
13**PUMP & MOTOR****TOTAL HEAD (M) AT FLOW RATE Q**

Stages	HP	kW	0 m ³ /h	1.0	1.4	2.0	2.4	2.7
			0 L/min	17	23	33	40	45
6	0.5	0.37	35	31	29	23	14	8
9	0.5	0.37	52	46	43	35	22	12
13	0.75	0.55	75	67	62	51	31	17
18	1.0	0.75	104	93	86	70	43	23
23	1.5	1.1	133	118	109	90	55	30
28	2.0	1.5	162	144	133	109	67	36
33	2.0	1.5	191	170	157	129	79	43
40	3.0	2.2	232	206	190	156	96	52
48	3.0	2.2	278	247	228	187	115	62
55	4.0	3.0	319	283	261	215	132	72
65	4.0	3.0	377	335	309	254	156	85
75	5.0	3.7	435	386	356	293	180	98
90	6.0	4.5	522	464	428	351	216	117



OSP-2 · HEAD & PUMP EFFICIENCY · 50 HZ

Bold column = duty point 2 m³/h (33 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.

Selecting a pump

- Work out the total head: static lift + drawdown + pipe and fitting losses + required delivery pressure.
- Pick the first row whose head at your required flow is at least that total head.
- Keep the duty point inside the bold (recommended) part of the curve.

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.

4" pump · 4" motor

OSP-3

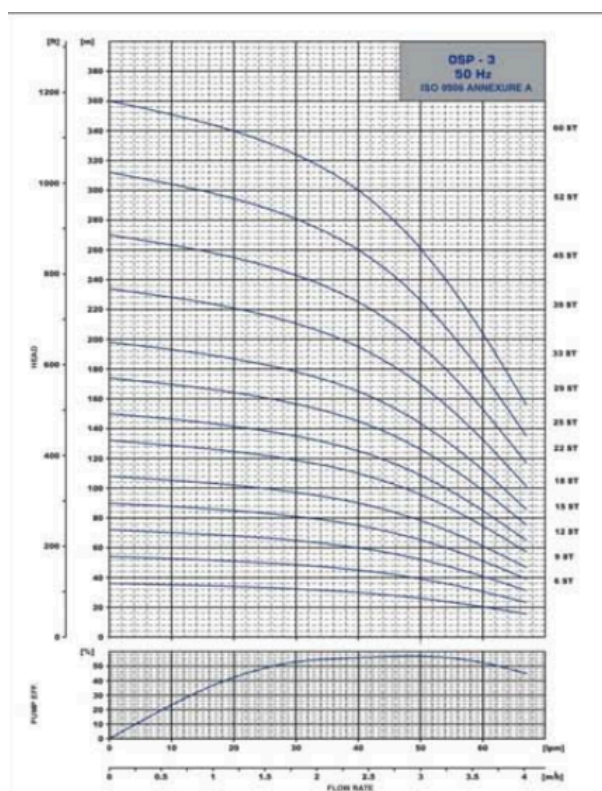
Performance · 4" motor

NOMINAL
3 m³/hFLOW
1.8–4 m³/hMAX. HEAD
360 mPOWER
0.37–4.5 kWOUTLET
1½"RATINGS
13

PUMP & MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

Stages	HP	kW	0 m ³ /h	1.8	2.4	3.0	3.6	4.0
			0 L/min	30	40	50	60	67
6	0.5	0.37	36	32	30	26	20	16
9	0.75	0.55	54	49	45	39	31	23
12	1.0	0.75	72	65	60	52	41	31
15	1.5	1.1	90	81	75	65	51	39
18	1.5	1.1	108	97	90	78	61	47
22	2.0	1.5	132	119	110	96	75	57
25	2.0	1.5	150	135	125	109	85	65
29	3.0	2.2	174	157	145	126	99	75
33	3.0	2.2	198	178	165	144	112	86
39	4.0	3.0	234	211	195	170	133	101
45	4.0	3.0	270	243	225	196	153	117
52	5.0	3.7	312	281	260	226	177	135
60	6.0	4.5	360	324	300	261	204	156



OSP-3 · HEAD & PUMP EFFICIENCY · 50 HZ

Bold column = duty point 3 m³/h (50 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.

Corrected: delivery size printed "½" in every row of this table → 1½" (type table); 12 stages printed ".1.0" HP → 1.0. The source chart for OSP-3 is titled "OSP-2".

Selecting a pump

- Work out the total head: static lift + drawdown + pipe and fitting losses + required delivery pressure.
- Pick the first row whose head at your required flow is at least that total head.
- Keep the duty point inside the bold (recommended) part of the curve.

4" pump · 4" motor

OSP-5

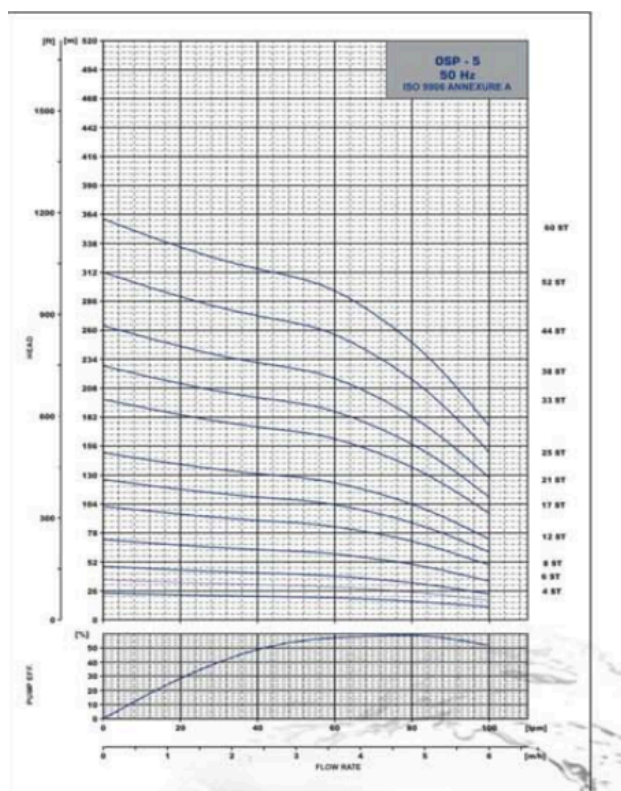
Performance · 4" motor

NOMINAL
5 m³/hFLOW
2.4–6 m³/hMAX. HEAD
360 mPOWER
0.37–5.5 kWOUTLET
1½"RATINGS
12

PUMP & MOTOR

TOTAL HEAD (M) AT FLOW RATE Q

Stages	HP	kW	0 m ³ /h	2.4	3.4	4.0	5.0	6.0
			0 L/min	40	57	67	83	100
4	0.5	0.37	24	21	20	19	16	12
6	0.75	0.55	36	32	30	28	24	17
8	1.0	0.75	48	42	40	38	32	23
12	1.5	1.1	72	63	60	56	48	35
17	2.0	1.5	102	89	85	80	68	49
21	3.0	2.2	126	110	105	99	84	61
25	3.0	2.2	150	131	125	118	100	73
33	4.0	3.0	198	173	165	155	132	96
38	5.0	3.7	228	200	190	179	152	110
44	6.0	4.5	264	231	220	207	176	128
52	7.5	5.5	312	273	260	244	208	151
60	7.5	5.5	360	315	300	282	240	174



OSP-5 · HEAD & PUMP EFFICIENCY · 50 HZ

Bold column = duty point 4 m³/h (67 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.

Corrected (red): 8 stages printed ".8" and 1.0 HP ".1.0"; the 3 HP row printed 30 stages between 17 and 25 — its heads (126 m ≈ 6 m × 21) give **21 stages**; 60 stages at 6 m³/h printed 0 → **174 m** (2.9 m per stage, like every other row). Delivery size printed "½" → 1½".

Selecting a pump

- Work out the total head: static lift + drawdown + pipe and fitting losses + required delivery pressure.
- Pick the first row whose head at your required flow is at least that total head.
- Keep the duty point inside the bold (recommended) part of the curve.

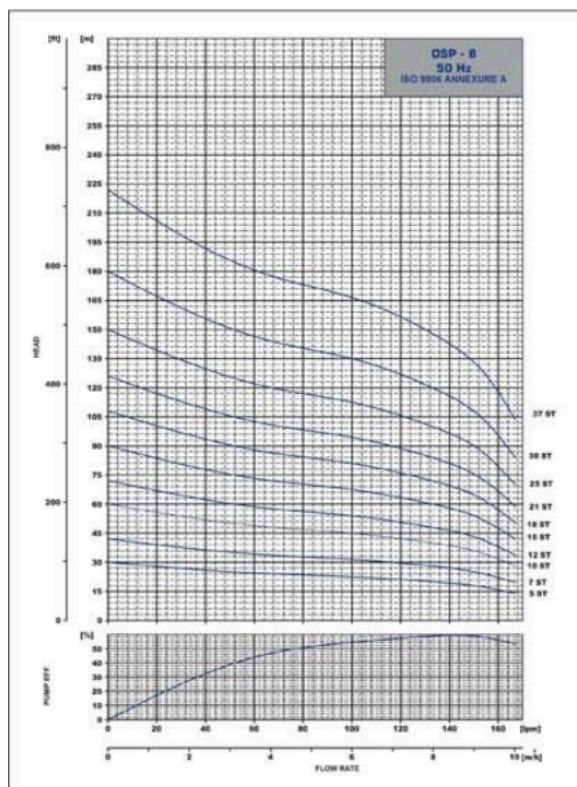
4" pump · 4" motor

OSP-8

Performance · 4" motor

NOMINAL
8 m³/hFLOW
4–10 m³/hMAX. HEAD
222 mPOWER
0.75–5.5 kWOUTLET
2"RATINGS
10**PUMP & MOTOR****TOTAL HEAD (M) AT FLOW RATE Q**

Stages	HP	kW	0 m ³ /h	4.0	6.0	8.0	9.0	10.0
			0 L/min	67	100	133	150	167
5	1.0	0.75	30	24	23	20	18	14
7	1.5	1.1	42	34	32	28	25	20
10	2.0	1.5	60	48	45	40	36	28
12	3.0	2.2	72	58	54	48	43	34
15	3.0	2.2	90	72	68	60	54	42
18	4.0	3.0	108	86	81	72	65	50
21	5.0	3.7	126	101	95	84	76	59
25	6.0	4.5	150	120	113	100	90	70
30	7.5	5.5	180	144	135	120	108	84
37	7.5	5.5	222	178	167	148	133	104



OSP-8 · HEAD & PUMP EFFICIENCY · 50 HZ

Bold column = duty point 8 m³/h (133 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.

As printed: 30 and 37 stages are both listed with 5.5 kW / 7.5 HP — confirm the 37-stage motor rating with the factory.

Selecting a pump

- Work out the total head: static lift + drawdown + pipe and fitting losses + required delivery pressure.
- Pick the first row whose head at your required flow is at least that total head.
- Keep the duty point inside the bold (recommended) part of the curve.

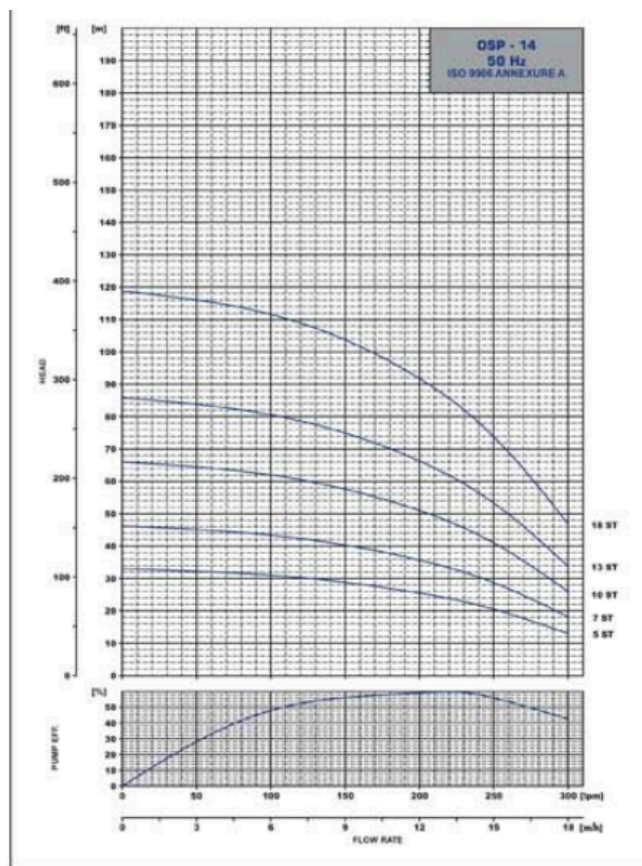
4" pump · 4" motor

OSP-14

Performance · 4" motor

NOMINAL
14 m³/hFLOW
6–18 m³/hMAX. HEAD
119 mPOWER
1.5–5.5 kWOUTLET
2"RATINGS
5**PUMP & MOTOR****TOTAL HEAD (M) AT FLOW RATE Q**

Stages	HP	kW	0 m ³ /h	6.0	12.0	14.0	15.0	18.0
			0 L/min	100	200	233	250	300
5	2.0	1.5	33	31	26	23	21	13
7	3.0	2.2	46	43	36	32	29	18
10	4.0	3.0	66	62	51	46	41	26
13	6.0	4.5	86	81	66	60	53	34
18	7.5	5.5	119	112	92	83	74	47



OSP-14 · HEAD & PUMP EFFICIENCY · 50 HZ

Bold column = duty point 12–14 m³/h (200–233 L/min). Speed approx. 2850 min⁻¹; ISO 9906 Annex A; 50 Hz.

Selecting a pump

- Work out the total head: static lift + drawdown + pipe and fitting losses + required delivery pressure.
- Pick the first row whose head at your required flow is at least that total head.
- Keep the duty point inside the bold (recommended) part of the curve.

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.