



Ushering in Prosperity

Look At The Range We Have For Energy Saving
STAINLESS STEEL 6" SUBMERSIBLE PUMPS

FOR 4", 6" MOTOR
OSP 9/12

S.S. PUMPS







**OSWAL** submersible pumps & motors are well known for its quality, Reliability & excellent for all type of service purpose. **OSWAL** submersible pumps & motors are manufactured under supervision of highly qualified technical team with a stage wise rigid inspection procedure under TQM concepts. **OSWAL** team are well known for their excellent services after sales.

The company has also obtained BIS certificate for ISI mark and through continuous process improvements & streamlining the quality system at par with the international standards has now acquired ISO:9001:2000 certifications.

Application of Bore well submersible pumps are Hospitals, Water circulation systems, Water supply systems of Government, Irrigation, Farms, Drip & sprinkler irrigation, Gardening, Nurseries, Domestic water supply, Multi-storeyed Building & Industrial water supply systems & Hotels.

**OSWAL** has successfully developed its energy efficient and cost efficient pump manufacturing of fully fabricated S.S.-304 with a quality level as per international standard. The company has offering quality product at a lowest price .the company has exporting pump sets to developed countries and the same quality is supply in domestic market.

**OSWAL**Submesible Pumpsets of moduler design suitable for under-water operation for universal fit, all mounting dimensions of pumps and motors are in accordance with NEMA standards. **OSWAL** submersible pumpset are of completely S.S.-304 construction with fabricated technology, light weight easy for handling, life longivity, pump shaft using Duplex steel for high wear resistance.

OSWAL WATER FILLED AND WATER COOLED SUBMERSIBLE MOTORS confirm to IS: 9283. Pump set confirm to IS: 8034.

#### GENERAL DATA

- \* Duty Dish: 150 to 200 LPM.
- \* Pumped liquid: Clean water free from solid, Chemically Natural & Close the characteristics of water.
- \* Max. liquid temperature : 35°c.
- \* Max. Quantity of sand : 40gm/m3.
- \* Minimum Suction head required : 1.5 meter.
- \* Starts/hours: max. 15 to 20

ТҮРЕ		OSP 9	OSP 12	
Steel : S.S304		+	+	
Connection: Pn (Inches)	BSP Thread	2"	2.5"	
Connection: Rp (Inches)	NPT Thread	2"	2.5"	

## GENERAL DATA

PUMP MODEL TYPE KEY EXAMPLE	OSP	6	9	1
* Model type				
* 6" Motor with 6" pump				
* Nominal flow rate *16.67 lpm				
* Numbers of Impellers —				







# PUMPED LIQUIDS

\* Clean, thin, non-aggressive liquids without solid particles.

# OPERATING CONDITIONS

- \* Flow Rate (min. to max.) 6-18 M3/h
- \* Head, H: Maximum 450 m.







## **Maximum Liquid Temperature:**

Motor	Installation							
	Flow velocity- past motor	Vertical	Horizonta					
6**	0.15 m/s	40°c	40°c					

Operating pressure: Maximum 67 bar.

## CURVE CONDITIONS

\* The conditions below apply to the curves shown on the following pages:









### OSP-9, OSP-12 CURVE

- \* Q/H: The curves are inclusive of losses such as NRV losses at the actual speed. Operation without non-return valve will increase the actual head at nominal performance by 0.5 to 1.0 m.
- \* Power Curve : (BPKW) For Particular Stage shows pump power.
- \* Efficiency Curve: Efficiency shows pump stage efficiency.

#### FEATURES AND BENEFITS

#### A Wide Pump Range

\* We offers submersible pumps with energy-efficient duty points ranging from 9 to 12 m³/h. The pump range consist of many pump sizes (Stages) to match any duty point.

#### High Pumps Efficiency

\* Often pump efficiency is a neglected factor compared to the price variations are without importance of pump and motor efficiencies.

#### Example

- \* Pumping water-12m3/h with a head of 60 meter.
- \* When choosen stainless steel energy efficient pump, be saved (than other pumps) 4unit (kwh) per hour.
- \* It save Rs. 4,60,000 in 10 year for 8 hours / day running)

#### Application

\* We offers a complete range of pumps and motors with as a standard are made completely as stainless steel - 304. This provides for good wear resistance and a reduced risk of corrosion when pumping ordinary cold water with a minor content of chloride.

#### **Low Installation Cost**

\* These pumps have low weight facilitating the handling of pumps and resulting in low equipment costs and reduced installation and service time. In addition pumps will be as new after service due to the high wear resistance of stainless steel.

#### **Bearing with Sand Channels**

\* All bearing are water-Lubricated and have a octagone shape enabling sand particles.



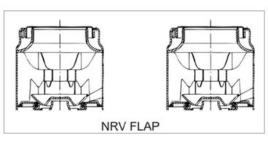
## Inlet Strainer

\* The inlet strainer prevents particles over a certain size from entering the pump.



## Non-Return Valve

- \* All pumps are equipped with a non-return valve in the valve casing preventing back flow in connection with pump stoppage.
- \* Furthermore, the short closing time of the non-return valve means that the risk of destructive water hammer is reduced to the minimum.
- \* The valve casing is designed for optimum hydraulic properties, to minimize the pressure loss across the valve and thus contributes to the high efficiency of the pump.



## Stop Ring

- \* The stop ring prevents damage to the pump during transport and in case of up-thrust in connection with start-up.
- \* The stop ring, which is designed as a thrust bearing limits axial movements of the pump shaft.
- \* Example : OSP-9







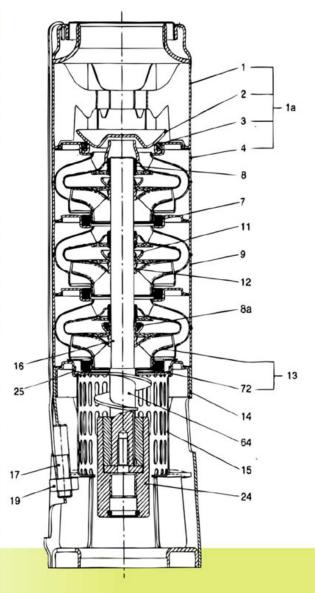
## GENERAL

- \* Curve tolerance according to ISO 9906, Annex A&B.
- \* The performance curves show pump performance at actual speed of standard motor range.

  \* The speed of the motors is approximately:
  6" motors: n=2850 min<sup>-1</sup>
- \* The measurements were made with airless water at a temperature of 20°c. The curves apply to a kinematic viscosity of 1mm²/s.
- When pumping liquids with a density higher than that a water, motors with correspondingly higher outputs must be used.
- \* The bold curves indicate the performance range.

# MATERIAL SPECIFICATION OSP 9

S.No.	Components	Material	Standard
1	Valve casing	Stainless steel	304
la	Discharge chamber complete	Stainless steel	304
2	Valve cup	Stainless steel	304
3	Valve seat	Stainless steel	
4	Top intermediate chamber	Stainless steel	304
6	Top bearing	NBR	
7	Neck ring	NBR/PPS	
8	Intermediate bearing	NBR	
8a	Spacing washer	Cabron/graphite Hy 22 in PTFE mass	
9	Intermediate chamber	Stainless steel	304
11	Split cone nut	Stainless steel	304
12	Split cone	Stainless steel	304
13	Impeller	Stainless steel	304
14	Suction interconnector	Stainless steel	304
15	Strainer	Stainless steel	304
16	Pump shaft	Stainless steel	316
17	Strap	Stainless steel	304
18	Cable guard	Stainless steel	304
19	Nut	Stainless steel	304
19a	Nut	Stainless steel	304
23	Rubber guard	Rubber	
25	Neck ring retainer	Stainless steel	304
SQ	Priming screw	Stainless steel	304
72	Wear ring	Stainless steel	304
75	Spacer ring	Stainless steel	304
78	Nameplate	Stainless steel	304

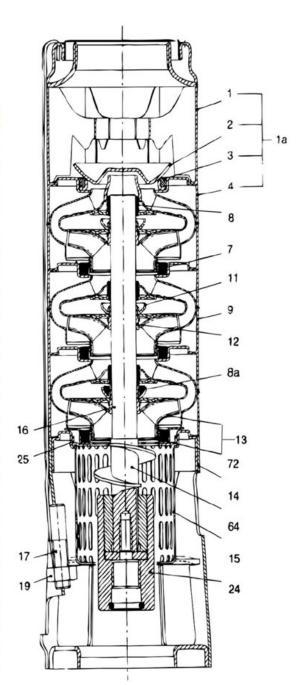






# MATERIAL SPECIFICATION OSP 12

S.No.	Components	Material	Standard
1	Valve casing	Stainless steel	304
la	Discharge chamber complete	Stainless steel	304
2	Valve cup	Stainless steel	304
3	Valve seat	Stainless steel	304
4	Top intermediate chamber	Stainless steel	304
6	Top bearing	NBR	
7	Neck ring	NBR/PPS	
8	Intermediate bearing	NBR	
8a	Spacing washer	Cabron/graphite Hy 22 in PTFE mass	
9	Intermediate chamber	Stainless steel	304
11	Split cone nut	Stainless steel	304
12	Split cone	Stainless steel	304
13	Impeller	Stainless steel	304
14	Suction interconnector	Stainless steel	304
15	Strainer	Stainless steel	304
16	Pump shaft	Stainless steel	316
17	Strap	Stainless steel	304
18	Cable guard	Stainless steel	304
19	Nut	Stainless steel	304
19a	Nut	Stainless steel	304
23	Rubber guard	Rubber	
25	Neck ring retainer	Stainless steel	304
SQ	Priming screw	Stainless steel	304
72	Wear ring	Stainless steel	304
75	Spacer ring	Stainless steel	304
78	Nameplate	Stainless steel	304

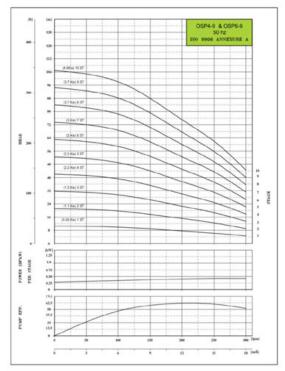


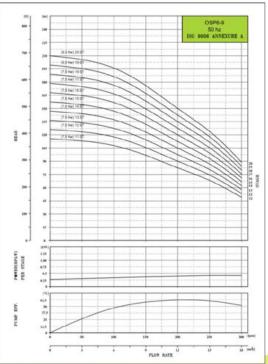




MODEL		MOTOR		DEL	1		DISC	HARGE			
		POWER	STAGE	SIZE	M'/H	0	- 6	9	12	15	
		IN MM	(L.P.M.)	0	100	150	200	250			
OSP4-9	0.75	0.55	- 1	50	S		10.5	9.8	8.8	7.5	6.2
OSP4-9	1.5	1.1	2	50				21	20	18	15
OSP4-9	2	1.5	3	50		32	29	26	23	19	
OSP4-9	3	2.2	4	50	Ĕ	42	39	35	30	25	
OSP4-9	3	2.2	5	50	=	53	49	44	38	31	
OSP4-9	4	3	6 50	50	6	63	59	53	45	37	
OSP4-9	4	3.	7	50	HEAD (METERS)	74	69	62	53	43	
OSP4-9	5	3.7	8	50	=	84	78	70	60	50	
OSP4-9	5	3.7	9	50		95	88	79	68	56	
OSP4-9	6	4.5	10	50		105	98	88	75	62	

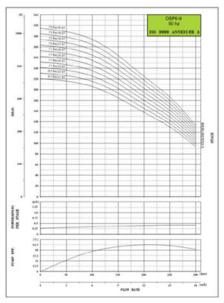
			PERF	DRMAN	CE TABLE	OSP6	-9					
- 1		MOTOR		DEL	DISCHARGE							
MODEL	HP	POWER	STAGE	SIZE	M'/H	0	6	9	12	15		
		(KW)		IN.MM.	(L.P.M.)	0.0	100	150	200	250		
OSP6-9	3	2.2	4	50		42	39	35	30	25		
OSP6-9	3	2.2	5	50		53	49	44	38	31		
OSP6-9	4	3	6	50		63	59	53	45	37		
OSP6-9	4	3	7	50		74	69	62	53	43		
OSP6-9	5	3.7	8	50		84	78	70	60	50		
OSP6-9	5	3.7	9	50		95	88	79	68	56		
OSP6-9	6	4.5	10	50		105	98	88	75	62		
OSP6-9	7.5	5.5	11	50		116	108	97	83	68		
OSP6-9	7.5	5.5	12	50		126	118	106	90	74		
OSP6-9	7.5	5.5	13	50		137	127	114	98	81		
OSP6-9	10	7.5	14	50		147	137	123	105	87		
OSP6-9	10	7.5	15	50		158	147	132	113	93		
OSP6-9	10	7.5	16	50		168	157	141	120	99		
OSP6-9	10	7.5	17	50		179	167	150	128	105		
OSP6-9	10	7.5	18	50		189	176	158	135	112		
OSP6-9	12.5	9.3	19	50		200	186	167	143	118		
OSP6-9	12.5	9.3	20	50	2	210	196	176	150	124		
OSP6-9	12.5	9.3	21	50		221	206	185	158	130		
OSP6-9	12.5	9.3	22	50	₩.	231	216	194	165	136		
OSP6-9	15	- 11	23	50	IEAD (METERS	242	225	202	173	143		
OSP6-9	15	- 11	24	50		252	235	211	180	149		
OSP6-9	15	-11	25	50	4	263	245	220	188	15		
OSP6-9	15	11	26	50		273	255	229	195	161		
OSP6-9	17.5	13	27	50		284	265	238	203	167		
OSP6-9	17.5	13	28	50		294	274	246	210	174		
OSP6-9	17.5	13	29	50		305	284	255	218	180		
OSP6-9	17.5	13.	30	50		315	294	264	225	186		
OSP6-9	17.5	13	31	50		326	304	273	233	192		
OSP6-9	20	15	32	50		336	314	282	240	198		
OSP6-9	20	15	33	50		347	323	290	248	205		
OSP6-9	20	15	34	50		357	333	299	255	211		
OSP6-9	20	15	35	50		368	343	308	263	217		
OSP6-9	20	15	36	50		378	353	317	270	223		
OSP6-9	25	18.5	37	50		389	363	326	278	229		
OSP6-9	25	18.5	38	50		399	372	334	285	236		
OSP6-9	25	18.5	39	50		410	382	343	293	242		
OSP6-9	25	18.5	40	50		420	392	352	300	248		
OSP6-9	25	18.5	41	50		431	402	361	308	254		
OSP6-9	25	18.5	42	50		441	412	370	315	260		
OSP6-9	25	18.5	43	50		452	421	378	323	267		
OSP6-9	25	18.5	44	50		462	431	387	330	273		

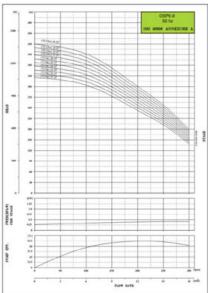


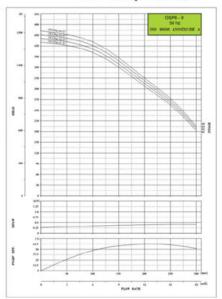




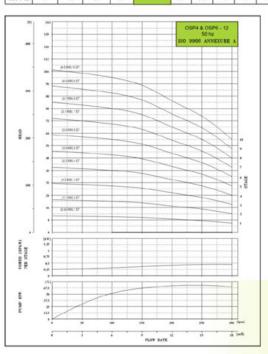








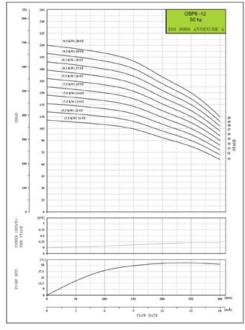
	PERFORMANCE TABLE OSP4- 12														
		MOTOR	9	-			DISC	HARGE							
MODEL	HP	POWER	STAGE	DEL SIZE	M/H	0	6	9	12	15	1.8				
		(KW)		IN MM	(L.P.M.)	0	100	150	200	250.0	300				
OSP4-12	0.75	0.55	1	65		10.5	10.0	9.5	8.5	7.5	6				
OSP4-12	1.5	1.1	2	65			21	20	19	17	15	12			
OSP4-12	2	1.5	3	65	<u>\$</u>	32	30	29	26	23	18				
OSP4-12	3	2.2	4	6.5	=	42	40	38	34	30	24				
OSP4-12	4	3	5	65	65	65	65	65	(METERS)	53	50	48	43	38	30
OSP4-12	4	3	6.	65	ă	63	60	57	51	45	36				
OSP4-12	5	3.7	7.	65	HEAD	74	70	67	60	53	42				
OSP4-12	5	3.7	8	65	=	84	80	76	68	60	48				
OSP4-12	6.	4.5	9	65		95	90	85	77	68	54				
OSP4-12	6	4.5	10	65		105	100	95	85	75	60				

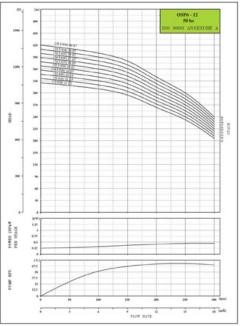


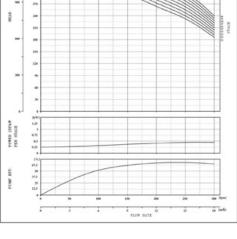
PERFORMANCE TABLE OSP6-12												
		MOTOR		DEL	DISCHARGE							
MODEL	HP	POWER	STAGE	SIZE IN MM	M'/H	0	- 6	9	12	15	18	
		(10.11)			(L.P.M.)	0.0	100	150	200	250.0	300	
OSP6-12	3	2.2	4	65		42.0	10.0	9.5	8.5	7.5	.6	
OSP6-12	4	3	5	65		53	50	48	43	38	30	
OSP6-12	4	3.	- 6	65		63	60	57	51	45	36	
OSP6-12	5	3.7	7	65		74	70	67	60	53	42	
OSP6-12	5	3.7	8	65		84	80	76	68	60	48	
OSP6-12	6	4.5	9	6.5		95	90	86	77	68	54	
OSP6-12	6	4.5	10	65		105	100	95	85	75	60	
OSP6-12	5	3.7	8	65		84	80	76	68	60	48	
OSP6-12	6	4.5	9	65		95	90	86	77	68	. 54	
OSP6-12	. 6-	4.5	10	65		105	100	95	85	75	60	
OSP6-12	7.5	5.5	- 11	65		116	110	405	94	83	- 66	
OSP6-12	7.5	5.5	12	65		126	120	114	102	.90	72	
OSP6-12	10	7.5	13	65		137	130	124	111	98	78	
OSP6-12	10	7.5	14	65		147	140	133	119	105	84	
OSP6-12	10	7.5	15	65		158	150	143	128	113	90	
OSP6-12	10	7.5	16	65		168	160	152	136	120	96	
OSP6-12	12.5	9.3	17	65		179	170	162	145	128	102	
OSP6-12	12.5	9.3	18	65		189	180	171	153	135	108	
OSP6-12	12.5	9.3	19	65	_	200	190	181	162	143	114	
OSP6-12	12.5	93	20	65	S	210	200	190	170	150	120	
OSP6-12	15	11	21	65	HEAD (METERS)	221	210	200	179	158	126	
OSP6-12	15	11	22	65		231	220	209	187	165	132	
OSP6-12	15	11	23	65		242	230	219	196	173	138	
OSP6-12	15	11	24	65	Σ	252	240	228	204	180	144	
OSP6-12	17.5	13	25	65	$\simeq$	263	250	238	213	188	150	
OSP6-12	17.5	13	26	65	9	273	260	247	221	195	156	
OSP6-12	17.5	13	27	65	Œ	284	270	257	230	203	162	
OSP6-12	17.5	13	28	65	Ξ	294	280	266	238	210	168	
OSP6-12	20	15	29	65		305	290	276	247	218	174	
OSP6-12	20	15	30	65		315	300	285	255	225	180	
OSP6-12	20	15	31	65		326	310	295	264	233	186	
OSP6-12	20	15	32	65		336	320	104	272	240	192	
OSP6-12	20	15	33	65		347	330	314	281	248	198	
OSP6-12	25	18.5	34	65		357	340	323	289	255	204	
OSP6-12	25	18.5	35	65		368	350	333	298	263	210	
OSP6-12	25	18.5	36	65		378	360	342	386	270	216	
OSP6-12 OSP6-12	25	18.5	37	65		3/8	320	352	315	278	222	
OSP6-12 OSP6-12	25	18.5	38	65		100	350	362	323	285	228	
OSP6-12 OSP6-12	25	18.5	38	65		410	390	371	332	293	234	
							-	380	340	300	240	
OSP6-12	25	18.5	40	6.5		420	400		-			
OSP6-12	30	22	41	65		431	410	390	349	308	246	
OSP6-12	30	22	42	65		441	420	399	357	315	250	
OSP6-12	30	22	43	65		452	430	409	366	323	258	











Warranty: We provide warranty for a period of 12 months as per our standard terms and conditions mention in quotation/offer.

\* The manufacturer reserve the right to change the design, specification without prior notice. Exclusively manufactured by :

# Oswal Pumps Ltd.

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