

SS Submersible Pumps V6–V10

Stainless-steel (AISI 304) submersible pumps · OSP-9, 12, 17, 30, 46, 60, 77, 95, 125, 160 · Agricultural & industrial range



Ushering in prosperity

10 pump families · fully fabricated AISI 304 · water-lubricated bearings with sand channels



6"

OSP-9 · 12 · 17 · 30 · 46 · 60



8"

OSP-77 · 95



10"

OSP-125 · 160

150–2,700 L/min
duty range (9–160 m³/h)

670 m
max. head

67 bar
max. operating pressure

2"–6"
outlet, BSP or NPT

www.oswalpumps.com

SUBMERSIBLE PUMPS

Stainless-steel pumps, built to a standard

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

Oswal holds the BIS licence for the ISI mark and, through continuous process improvement and a quality system on par with international standards, is certified to **ISO 9001:2015**. Oswal has developed energy-efficient, cost-efficient pumps of fully fabricated **SS-304** construction to international quality levels, and exports pump sets to developed countries — supplying the same quality in the domestic market.

General data

Duty range	150 to 2,700 L/min (9–162 m ³ /h)
Flow range (min.–max.)	6 to 204 m³/h [†]
Head H	max. 670 m
Pumped liquid	Clean, thin, non-aggressive water free from solid particles; chemically neutral and close to the characteristics of water
Max. liquid temp.	35 °C [†] (see table)
Max. sand content	40 g/m³
Min. suction head	1.5 m
Starts per hour	max. 15 to 20
Operating pressure	max. 67 bar

[†] Values as printed in the source catalogue; they differ from other figures on the same page and are awaiting Oswal confirmation (see CHANGES.md).

Type & connections — outlet Rp (inches)

Type	OSP-9	OSP-12	OSP-17	OSP-30	OSP-46	OSP-60	OSP-77	OSP-95	OSP-125	OSP-160
Material	SS-304	SS-304	SS-304	SS-304	SS-304	SS-304	SS-304	SS-304	SS-304	SS-304
Rp — BSP thread	2"	2½"	2½"	3"	4"	4"	5"	5"	6"	6"
Rp — NPT thread	2"	2½"	2½"	3"	4"	4"	5"	5"	6"	6"

Oswal submersible pump sets are of modular design for underwater operation and universal fit: all mounting dimensions of pumps and motors follow **NEMA** standards. Fabricated stainless-steel construction keeps them light and easy to handle, with long life and a duplex-steel pump shaft for high wear resistance. Water-filled and water-cooled submersible motors conform to **IS 9283**; pump sets conform to **IS 8034**.

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

Pump model type key

OSP	95	A	B
Model type (Oswal stainless-steel pump)	Nominal flow rate in m ³ /h (× 16.67 = L/min)	1st impeller with reduced dia. (A, B, C)	2nd impeller with reduced dia. (A, B, C)

Example: **OSP-95 A B** — nominal 95 m³/h (≈ 1,584 L/min), impellers 1 and 2 trimmed to A and B.

Maximum liquid temperature

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

Curve conditions

- **Q/H:** curves include losses such as NRV losses at actual speed. Operation without a non-return valve increases the actual head at nominal performance by 0.5 to 1.0 m.
- **Power curve (P2, kW):** pump power for the particular number of stages.
- **Efficiency curve:** pump stage efficiency.

FEATURES & BENEFITS

Stainless steel, inside and out

A wide pump range

Energy-efficient duty points from 9 to 160 m³/h. The range comprises many pump sizes and stage counts to match any duty point.

Complete SS-304 construction

A complete range of pumps and motors made entirely of stainless steel AISI 304 as standard — good wear resistance and a reduced risk of corrosion when pumping ordinary cold water with a minor chloride content.

High pump efficiency

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

Low installation cost

Low weight eases handling and keeps equipment costs, installation and service time down. Thanks to the high wear resistance of stainless steel, pumps are as good as new after service.

EXAMPLE

Pumping 30 m³/h at 60 m head

≈ 4 kWh

saved every hour with an energy-efficient Oswal stainless-steel pump, compared with other pumps

₹4,60,000

saved in 10 years at 8 hours/day running

Design details

Bearings with sand channels

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



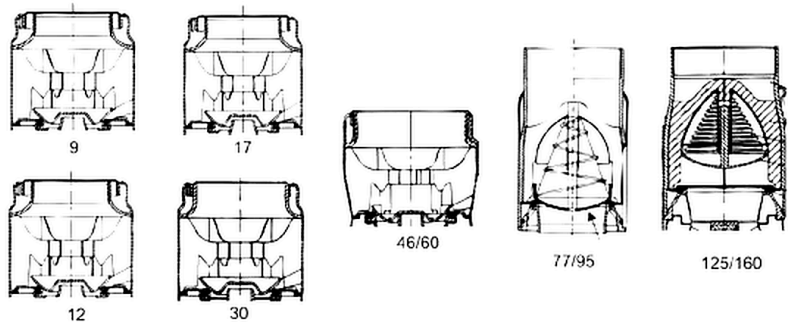
Inlet strainer

Prevents particles above a certain size from entering the pump.



Non-return valve

All pumps have a non-return valve in the valve casing that prevents back-flow at pump stoppage. Its short closing time reduces the risk of destructive water hammer to a minimum, and the valve casing is designed for optimum hydraulics — minimising pressure loss across the valve and contributing to the high efficiency of the pump.



Non-return valves by pump type: 9 · 12 · 17 · 30 · 46/60 · 77/95 · 125/160

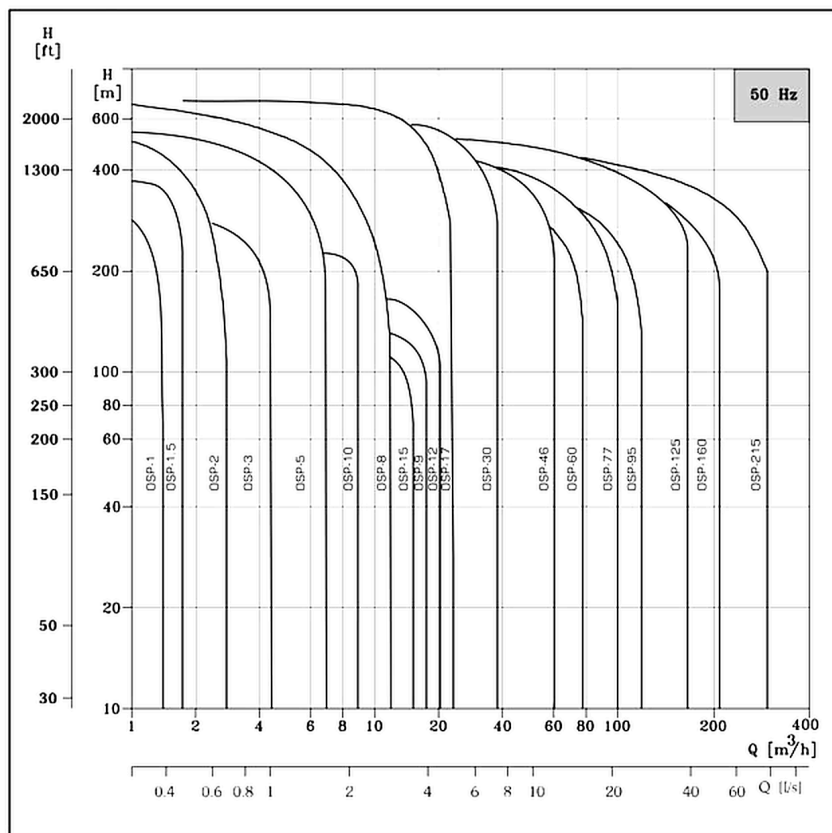
Stop ring

Prevents damage to the pump during transport and from up-thrust at start-up. Designed as a thrust bearing, it limits axial movement of the pump shaft. Example: OSP-30 (A, B, C).



CURVE RANGE · 50 HZ

Hydraulic coverage of the OSP range



Curve-range chart reproduced from the original Oswal drawing — H (m / ft) against Q (m³/h, l/s), 50 Hz.

General

- Curve tolerance according to ISO 9906, Annex A & B.
- Curves show pump performance at the actual speed of the standard motor range; motor speed approx. $n = 2,850 \text{ min}^{-1}$.
- Measured with airless water at 20 °C; curves apply to a kinematic viscosity of 1 mm²/s. For liquids denser than water, use motors with correspondingly higher output.
- Bold curves indicate the performance range.



Fabricated AISI 304 hydraulic components (photographs from the original catalogue)

Pump types in this catalogue

Type	OSP-9	OSP-12	OSP-17	OSP-30	OSP-46	OSP-60	OSP-77	OSP-95	OSP-125	OSP-160
Nominal flow (m³/h)	9	12	17	30	46	60	77	95	125	160
≈ Flow (L/min)	150	200	283	500	767	1,000	1,284	1,584	2,084	2,667
Bore size*	6"	6"	6"	6"	6"	6"	8"	8"	10"	10"
Material spec. sheet	p. 5	p. 5	p. 5	p. 6	p. 7	p. 7	p. 8	p. 8	p. 9	p. 9

Nominal flow = the number in the type code (m³/h); L/min = $\times 16.67$. * Bore size as per the Oswal OSP 50 Hz catalogue — not stated in the source of this catalogue. The curve-range chart also shows OSP families outside this catalogue (OSP-1 to OSP-8, OSP-10, OSP-15, OSP-215).

CONSTRUCTION

AISI 304

fully fabricated stainless steel

SHAFT

AISI 431

duplex-steel pump shaft

MOUNTING

NEMA

universal pump-motor fit

STANDARDS

IS 8034

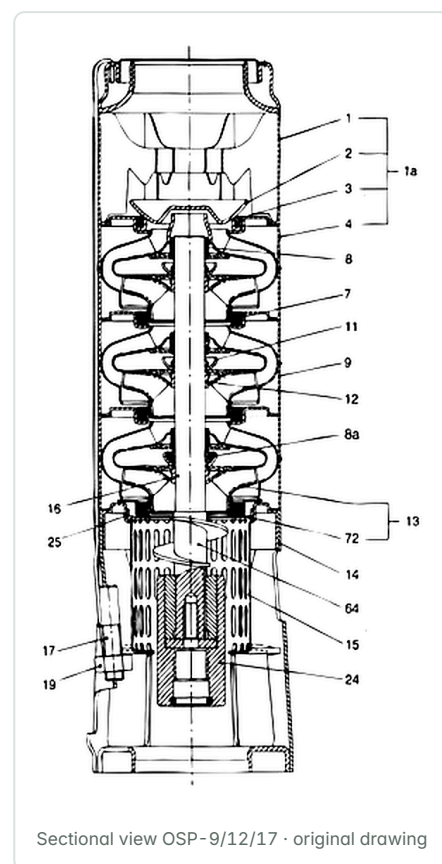
pump set · motor to IS 9283

MATERIAL SPECIFICATION

OSP-9 · OSP-12 · OSP-17

No.	Component	Material	Grade
1	Valve casing	Stainless steel	AISI 304
1a	Discharge chamber complete	Stainless steel	AISI 304
2	Valve cup	Stainless steel	AISI 304
3	Valve seat	Stainless steel	—
4	Top intermediate chamber	Stainless steel	AISI 304
6	Top bearing	NBR	—
7	Neck ring	NBR / PPS	—
8	Intermediate bearing	NBR	—
8a	Intermediate chamber	Stainless steel	AISI 304
9	Spacing washer	Carbon/graphite HY22 in PTFE mass	—
11	Split cone nut	Stainless steel	AISI 304
12	Split cone	Stainless steel	AISI 304
13	Impeller	Stainless steel	AISI 304
14	Suction interconnector	Stainless steel	AISI 304
15	Strainer	Stainless steel	AISI 304
16	Pump shaft	Stainless steel	AISI 431
17	Strap	Stainless steel	AISI 304
18	Cable guard	Stainless steel	AISI 304
19	Nut	Stainless steel	AISI 304
19a	Nut	Stainless steel	AISI 304
23	Rubber guard	Rubber	—
25	Neck ring retainer	Stainless steel	AISI 304
SQ	Priming screw	Stainless steel	AISI 304
72	Wear ring	Stainless steel	AISI 304
75	Spacer ring	Stainless steel	AISI 304
78	Nameplate	Stainless steel	AISI 304

AISI 304 / 431 = stainless-steel grade. "—" = sub-item without its own number. Callouts 24 and 64 on the sectional drawing are not listed in the source table.



AT A GLANCE

26

listed parts

19

in AISI 304

AISI 431

pump shaft

Elastomer & special materials:

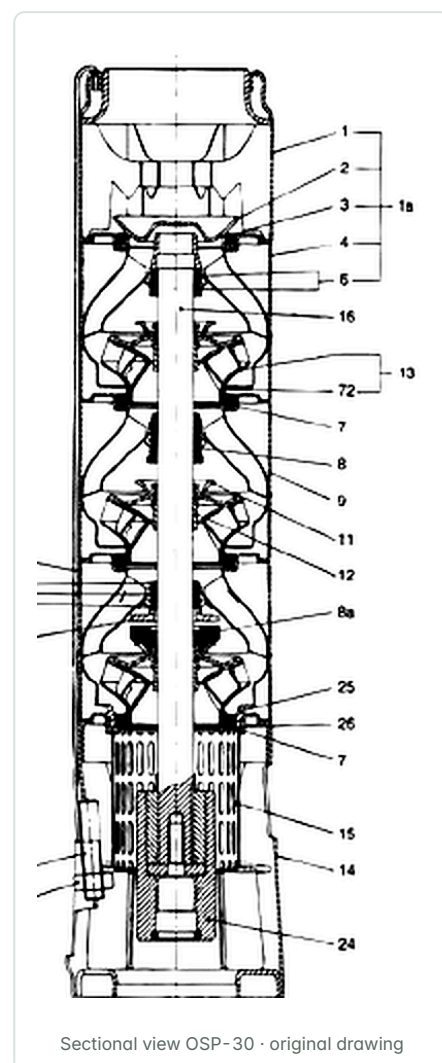
Carbon/graphite HY22 in PTFE mass, NBR, NBR / PPS, Rubber.

MATERIAL SPECIFICATION

OSP-30

No.	Component	Material	Grade
1	Valve casing	Stainless steel	AISI 304
1a	Discharge chamber complete	Stainless steel	AISI 304
2	Valve cup	Stainless steel	AISI 304
3	Valve seat	Stainless steel + NBR	—
4	Top intermediate chamber	Stainless steel	AISI 304
6	Upper bearing	NBR	—
·	Upper bearing cap	Stainless steel	AISI 304
6b	Lower bearing	NBR	—
·	Lower bearing cap	Stainless steel	AISI 304
7	Neck ring	NBR + stainless steel	—
8	Intermediate bearing	NBR	—
8a	Spacing washer for stop ring	Carbon/graphite HY22 in PTFE mass	—
8b	Stop ring	Stainless steel	AISI 304
9	Intermediate chamber	Stainless steel	AISI 304
10	Bottom intermediate chamber	Stainless steel	AISI 304
11	Split cone nut	Stainless steel	AISI 304
12	Split cone	Stainless steel	AISI 304
13	Impeller	Stainless steel	AISI 304
14	Suction interconnector	Stainless steel	AISI 304
15	Strainer	Stainless steel	AISI 304
16	Pump shaft	Stainless steel	AISI 431
17	Strap	Stainless steel	AISI 304
18	Cable guard	Stainless steel	AISI 304
19	Nut	Stainless steel	AISI 304
19a	Nut	Stainless steel	AISI 304
23	Rubber guard	Rubber	—
25	Neck ring retainer	Stainless steel	AISI 304
72	Wear ring	Stainless steel	AISI 304
78	Nameplate	Stainless steel	AISI 304

AISI 304 / 431 = stainless-steel grade. "·" = sub-item without its own number.



AT A GLANCE

29

listed parts

21

in AISI 304

AISI 431

pump shaft

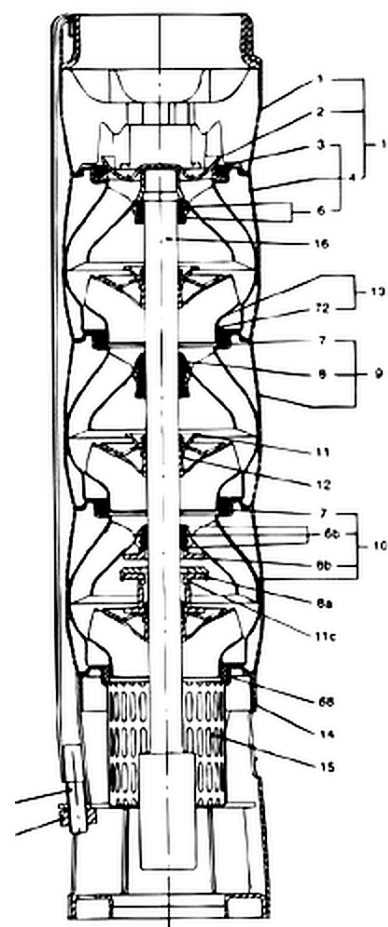
Elastomer & special materials:
Carbon/graphite HY22 in PTFE mass, NBR,
NBR + stainless steel, Rubber, Stainless steel
+ NBR.

MATERIAL SPECIFICATION

OSP-46 · OSP-60

No.	Component	Material	Grade
1	Valve casing	Stainless steel	AISI 304
1a	Discharge chamber complete	Stainless steel	AISI 304
2	Valve cup	Stainless steel	AISI 304
3	Valve seat	Stainless steel + NBR	—
4	Top chamber	Stainless steel	AISI 304
6	Upper bearing	NBR	—
·	Upper bearing cap	Stainless steel	AISI 304
6b	Lower bearing	NBR	—
·	Lower bearing cap	Stainless steel	AISI 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	AISI 304
9	Intermediate chamber	Stainless steel	AISI 304
10	Bottom chamber complete	Stainless steel	AISI 304
11	Split cone nut	Stainless steel	AISI 304
11c	Nut for stop ring	Stainless steel	AISI 304
12	Split cone	Stainless steel	AISI 304
13	Impeller	Stainless steel	AISI 304
14	Suction interconnector	Stainless steel	AISI 304
15	Strainer	Stainless steel	AISI 304
16	Pump shaft	Stainless steel	AISI 431
17	Strap	Stainless steel	AISI 304
18	Cable guard	Stainless steel	AISI 304
18a	Cheese-head screw for cable guard	Stainless steel	AISI 304
19	Nut	Stainless steel	AISI 304
19a	Nut	Stainless steel	AISI 304
23	Rubber guard	Rubber	—
68	Bottom neck ring	NBR / stainless steel	AISI 304
72	Wear ring	Stainless steel	AISI 304
78	Nameplate	Stainless steel	AISI 304

AISI 304 / 431 = stainless-steel grade. "·" = sub-item without its own number.



Sectional view OSP-46/60 · original drawing

AT A GLANCE

31

listed parts

23

in AISI 304

AISI 431

pump shaft

Elastomer & special materials:

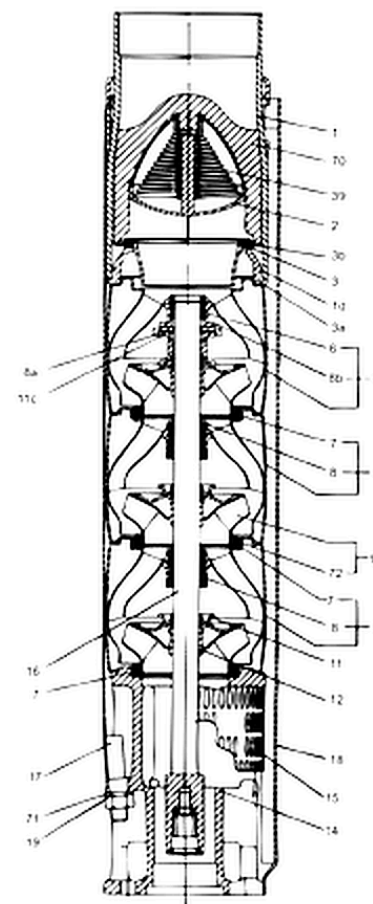
Carbon/graphite HY22 in PTFE mass, NBR, NBR + stainless steel, NBR / stainless steel, Rubber, Stainless steel + NBR.

MATERIAL SPECIFICATION

OSP-77 · OSP-95

No.	Component	Material	Grade
1	Valve casing	Stainless steel	AISI 304
2	O-ring	NBR	—
3	Valve cup	Stainless steel	AISI 304
4	Valve seat	Stainless steel	AISI 304
5	Lower valve seat strainer	Stainless steel	AISI 304
6	Upper valve seat strainer	Stainless steel	AISI 304
7	Top chamber	Stainless steel	AISI 304
8	Upper bearing	Stainless steel + NBR	AISI 304
9	Neck ring	NBR / SS-304 ring	—
10	Bearing	NBR	—
11	Washer for stop ring	Carbon/graphite HY22 in PTFE mass	AISI 304 [†]
12	Stop ring	Stainless steel	— [†]
13	Chamber	Stainless steel	— [†]
14	Split cone nut	Stainless steel	AISI 304
15	Nut for stop ring	Stainless steel	AISI 304
16	Split cone	Stainless steel	AISI 304
17	Impeller	Stainless steel	AISI 304
18	Suction interconnector	Stainless steel	AISI 304
19	Strainer	Stainless steel	AISI 304
20	Shaft complete	Stainless steel	AISI 431
21	Strap	Stainless steel	AISI 304
22	Cable guard	Stainless steel	AISI 304
23	Nut for strap	Stainless steel	AISI 304
24	Spring for valve cup	Stainless steel	AISI 304
25	Valve guide	Stainless steel	AISI 304
26	Washer	Stainless steel	AISI 304
27	Wear ring	Stainless steel	AISI 304

AISI 304 / 431 = stainless-steel grade. "—" = sub-item without its own number. † Grade entries for items 11–13 appear shifted in the source (304 printed against the carbon/graphite washer; none against the stop ring and chamber) — awaiting Oswal confirmation. The item numbers of this table (1–27) do not match the callouts on the sectional drawing.



Sectional view OSP-77/95 · original drawing

AT A GLANCE

27

listed parts

21

in AISI 304

AISI 431

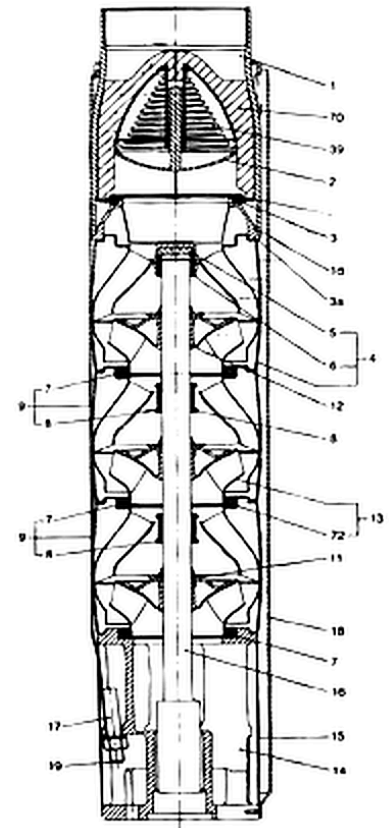
pump shaft

Elastomer & special materials:
Carbon/graphite HY22 in PTFE mass, NBR,
NBR / SS-304 ring, Stainless steel + NBR.

MATERIAL SPECIFICATION

OSP-125 · OSP-160

No.	Component	Material	Grade
1	Valve complete	Stainless steel	AISI 304
1d	O-ring	NBR	—
2	Valve cup	Stainless steel	AISI 304
3	Valve seat	Stainless steel + NBR	—
3a	Lower valve seat retainer	Stainless steel	AISI 304
4	Top chamber	Stainless steel	AISI 304
5	Stop disc	Zinc-less bronze	—
6	Upper bearing	Stainless steel + NBR	—
7	Neck ring	NBR + stainless steel	—
8	Bearing	NBR	—
9	Intermediate chamber	Stainless steel	AISI 304
11	Split cone nut	Stainless steel	AISI 304
12	Split cone	Stainless steel	AISI 304
13	Impeller	Stainless steel	AISI 304
14	Suction interconnector	Stainless steel	AISI 304
15	Strainer	Stainless steel	AISI 304
16	Pump shaft	Stainless steel	AISI 431
17	Strap	Stainless steel	AISI 304
18	Cable guard	Stainless steel	AISI 304
18a	Cheese-head screw for cable guard	Stainless steel	AISI 304
19	Nut	Stainless steel	AISI 304
19a	Nut	Stainless steel	AISI 304
22	Hex-head (HH) bolt	Stainless steel	AISI 304
22a	Nut	Stainless steel	AISI 304
23	Rubber guard	Rubber	— [†]
28	Lock for strainer	Stainless steel	—
39	Spring for valve cup	Stainless steel	AISI 304
70	Valve guide complete	Stainless steel	AISI 304
71	Washer	Stainless steel	AISI 304
72	Wear ring	Stainless steel	AISI 304
77	Cover plate for suction interconnector	Stainless steel	AISI 304
77a	Screw for cable guard holder	Stainless steel	AISI 304
78	Nameplate	Stainless steel	AISI 304
79	Rivet	Stainless steel	AISI 304



Sectional view OSP-125/160 · original drawing

AT A GLANCE

34

listed parts

25

in AISI 304

AISI 431

pump shaft

Elastomer & special materials: NBR, NBR + stainless steel, Rubber, Stainless steel + NBR, Zinc-less bronze.

AISI 304 / 431 = stainless-steel grade. "—" = sub-item without its own number. † Source printed "304" as the grade of the rubber guard; removed, as AISI 304 is a steel grade.

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.



True Partner!

Oswal Pumps Limited

Exclusively manufactured by Oswal Pumps Ltd. · Pumps & Motors · Solar | Domestic |
Agriculture | Industrial

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