

Oswal Pumps Ltd.



ISI · ISO 9001:2015 · BEE · CE



Oswal OCH Series

Horizontal multistage centrifugal pumps · OCHP pressure-boosting systems · pressure tanks, controls & float switches



Pressure boosting

Constant water pressure for homes, apartments, hotels, farms and industry



0.37–1.5 kW
0.5–2 HP

up to 56 m
shut-off head

up to 150 L/min
OCH-5

24–100 L
pressure tanks

www.oswalpumps.com

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Oswal Estate, Karnal

Integrated manufacturing of pumps, motors, wires, cables and castings

Need help choosing?

Tell us the number of outlets, required pressure and flow — we will recommend the right OCH pump or OCHP system.

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COMPANY PROFILE

An integrated pump & motor manufacturer since 2000

Oswal Pumps Limited, started in the year 2000, has become India's first unique integrated plant of its kind — a world-class manufacturing facility backed by seasoned engineers and technicians.

OCH horizontal multistage booster pumps and OCHP pressure-boosting systems are engineered with utmost care and stringent quality control at all stages to ensure trouble-free service. Pressure tanks, electronic and mechanical pressure controls and float switches complete the system from a single source.

Quality checks



Every pump is tested on in-house test benches before dispatch. Curve tolerances according to ISO 9906, Annex A.

One source, complete system

OCH

horizontal multistage centrifugal pumps

OCHP

pressure-boosting units with tank

Accessories

tanks · pressure controls · float switches



ISO 9001:2015 certified company

Our campus — Oswal Estate, NH-1, Karnal



OCH · horizontal multistage

Multistage Horizontal Booster Pumps

Stainless-steel hydraulics in a compact cast-iron and aluminium package — for pressure boosting and clean-water transfer

SIZES

OCH-1 · 2 · 3 · 5

POWER

0.37–1.5 kW

HEAD

up to 56 m

FLOW

up to 9 m³/h

Description

Oswal horizontal multistage centrifugal pumps have axial suction and vertical radial delivery with threaded ports. The impellers, diffusers and shaft are made of stainless steel and designed to deliver the best possible hydraulic efficiency. The pump is non-self-priming, with a bellows-type mechanical shaft seal.

The pumps are driven by a totally enclosed, fan-cooled AC induction motor suitable for continuous duty. The stator is made of low-watt-loss steel laminations assembled under pressure and rigidly locked in the frame; the dynamically balanced rotor ensures vibration-free, quiet operation. The shaft is made of quality stainless steel. All single-phase pumps incorporate a thermal overload protector. The pumps require an adequate starter / motor-protector control panel.

Applications

Industrial & domestic water pressure boosting and distribution

Small farms

Pumping of clean liquids in industry

Car washing

Hotels & multi-storey buildings

Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids without solid particles or fibres.

Salient features

- ✓ Fitted with motor protector
- ✓ SS-304 impellers and stage casings
- ✓ Designed for wide voltage fluctuations
- ✓ Aluminium body for better heat dissipation
- ✓ Higher working pressure
- ✓ Sturdy and compact



Pressure boosting for irrigation, distribution and washing duty.

CHARACTERISTICS · MATERIALS · CONDITIONS

OCH — technical data

Characteristics of pumped liquids

Temperature	45 °C (max.) ¹
Permissible amount of sand	28 g/m ³ (max.)
Chloride-ion density	500 ppm (max.)
Allowable solids	3,000 ppm (max.)
Specific gravity	1.004 (max.)
Hardness (drinking water)	300 (max.)
Viscosity	1.75×10^{-6} m ² /s (max.)
Turbidity	50 ppm silica scale (max.)
pH	6.5 to 8.5

¹ The Oswal Star catalogue gives 90 °C water temperature for OCH — please confirm.

Performance-curve conditions

- Curve tolerances according to ISO 9906, Annex A.
- Performance is taken at rated voltage and rated frequency.
- Actual discharge depends on the availability of water in the well / tank and the height of the water column from the suction-pipe end.
- Measurements were made with airless water at 20 °C. When pumping liquids with a higher density than water, motors with correspondingly higher output must be used.
- Pipe friction losses are not included in the performance curves and tables.
- Pipe-connection threads are given as per BSP standard.
- The given performance is for specific materials of construction.
- The main scales of the curves are metres (head) and m³/h (flow).

Materials of construction · type S

Pump casing	Cast iron
Pump bracket	Cast iron
Impeller	SS-304
Diffuser	SS-304
Motor frame	Aluminium
Shaft	SS-410
Mechanical seal	Carbon & ceramic
Base plate	Mild steel

Important notes

- Do not run the pump dry — install a dry-run preventer to protect the pump set.
- Use cable, starter and protection devices of appropriate size and good quality.
- Use low-friction, good-quality pipes; pipe diameters must never be smaller than the pump connections.
- Install the pump according to the recommended head range; reduce the number of bends, elbows and T-pieces in the pipe line as far as possible.
- Run the pump for a few minutes at least once every 2 days to prevent seizing.
- Use a low-friction, good-quality foot valve.
- Disconnect power before working on or around the pumping system; only technically qualified personnel may carry out the work, complying with local electricity rules and regulations.
- Appropriate earthing is mandatory to reduce the risk of electric shock.
- Performance data and curves are at rated voltage and only indicative. Pipe sizes in inches are nominal sizes and the nearest conversion of mm.
- All pumps are suitable only for clear, cold, fresh, non-aggressive, non-explosive water without abrasives, solid particles or fibres.

OCH-1 · OCH-2

Performance data

50 Hz · 2,880 rpm · ISO 9906 Annex A

OCH-1

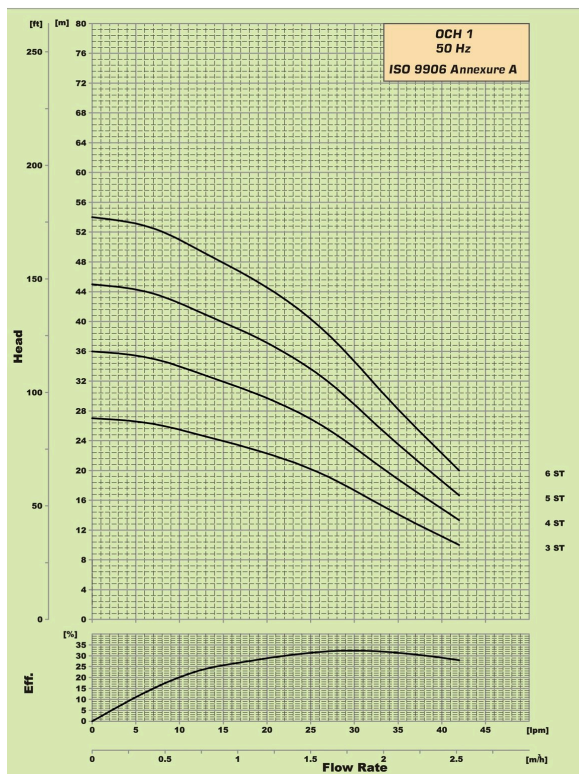
Model	kW	HP	Stages	m ³ /h	0	0.4	0.8	1	1.2	1.6	2
				L/min	0	7	13	17	20	27	33
OCH-1	0.37	0.5	3	HEAD (m)	28	27	26	24	23	20	16
OCH-1	0.45	0.6	4		37	36	34	32	30	27	21
OCH-1	0.55	0.75	5		46	45	42	40	37	33	27
OCH-1	0.75	1	6		55	54	50	48	45	39	32

OCH-2

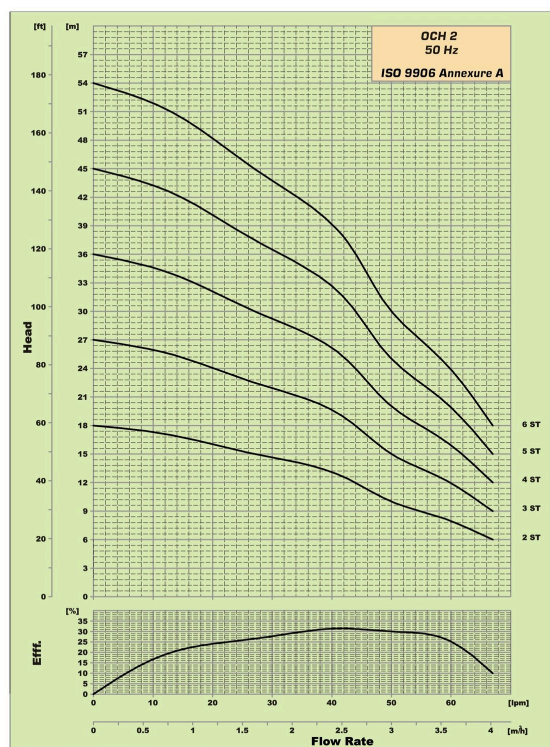
Model	kW	HP	Stages	m ³ /h	0	0.8	1.6	2.5	3	3.5	4
				L/min	0	13	27	42	50	58	67
OCH-2	0.37	0.5	2	HEAD (m)	19	18	16	14	11	9	7
OCH-2	0.45	0.6	3		28	27	24	20	16	14	10
OCH-2	0.55	0.75	4		37	35	31	26	21	18	13
OCH-2	0.75	1	5		46	44	39	33	26	22	16
OCH-2	0.93	1.25	6		55	52	46	39	31	26	19

Shaded column: duty point. Head in metres at the flow shown.

OCH-1 · 50 Hz



OCH-2 · 50 Hz



OCH-3 · OCH-5

Performance data

50 Hz · 2,880 rpm · ISO 9906 Annex A

OCH-3

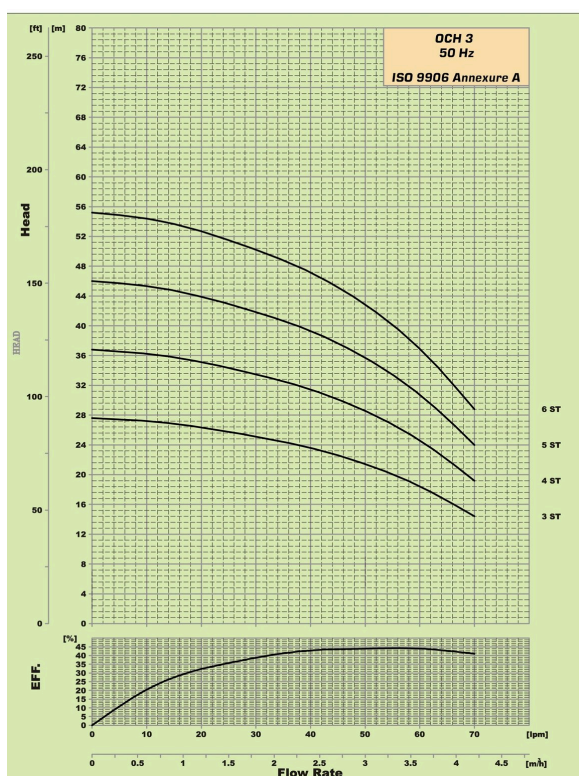
Model	kW	HP	Stages	m ³ /h	0	0.8	1.6	2.4	3	3.6	4.2
				L/min	0	13	27	40	50	60	70
OCH-3	0.55	0.75	3	HEAD (m)	29	28	27	25	22	19	15
OCH-3	0.75	1	4		38	37	35	32	30	26	20
OCH-3	0.93	1.25	5		47	46	44	40	37	32	25
OCH-3	1.1	1.5	6		56	55	52	48	44	38	30

OCH-5

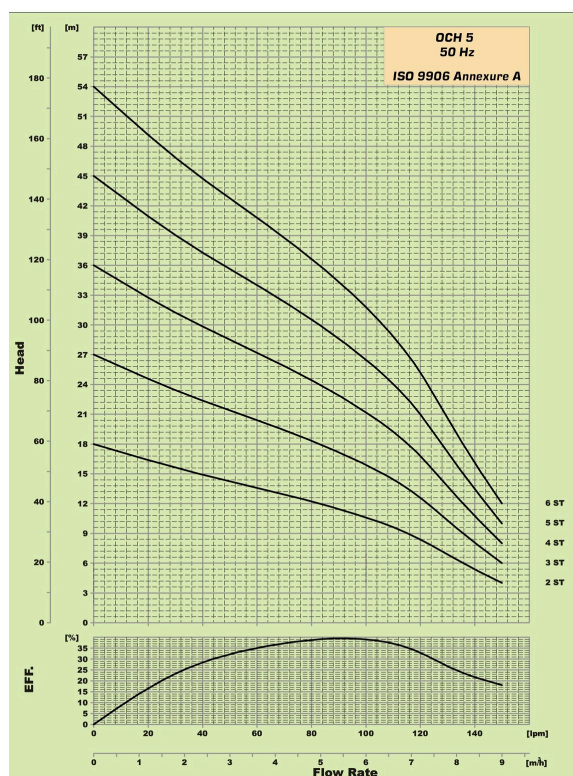
Model	kW	HP	Stages	m ³ /h	0	2	4	6	7	8	9
				L/min	0	33	66	100	117	133	150
OCH-5	0.45	0.6	2	HEAD (m)	19	16	14	12	10	7	5
OCH-5	0.75	1	3		28	24	21	17	14	11	7
OCH-5	0.93	1.25	4		37	32	27	22	19	14	9
OCH-5	1.1	1.5	5		46	40	34	28	23	17	11
OCH-5	1.5	2	6		55	47	41	33	27	20	13

Shaded column: duty point. Head in metres at the flow shown.

OCH-3 · 50 Hz



OCH-5 · 50 Hz



OCHP · pressure boosting

Pressure Boosting Series OCHP

OCH multistage pump with pressure tank, pressure control and gauge — automatic, constant-pressure water supply

SIZES

OCHP-2 · OCHP-5

TANKS

24–100 L

OUTLETS

2–12 taps

PRESSURE

1.6–5.1 kg/cm²

Specifications

Power range	0.22–1.1 kW (0.3–1.5 HP) ¹
Speed	2,880 rpm
Version	Single-phase, 200–240 V, 50 Hz AC (CSR) with thermal overload protector
Type of duty	S1 (continuous)
Degree of protection	IP54
Insulation class	E ²

Pump operating limits

Max. suction lift	6 m
Max. flow rate	2.5 L/s · 9 m ³ /h
Max. total head	50 m
Max. operating pressure	5.0 bar
Max. liquid temperature	33 °C ³
Max. ambient temperature	40 °C
Max. starts per hour	50



¹ The selection table includes 1.5 kW (2 HP) OCHP-5 units. ² Oswal Star catalogue: class B. ³ Oswal Star catalogue: 50 °C. Please confirm.

Water consumption chart

FLOW OF WATER (APPROX.)

Ordinary tap	9 L/min
Sink tap	9 L/min
Shower	9 L/min
Wash basin	9 L/min
Lawn sprinkler	15 L/min

WATER CONSUMPTION

Fill bath / bath tub	135 L
Flushing toilet	4–10 L
100 chickens	22 L/day
Sheep	5–10 L/day
Cattle	44–88 L/day
Milking cows	125–175 L/day

PRESSURE UNITS & CONVERSIONS

psi	pound per square inch
kgf/cm ²	kilogram-force per cm ²
1 bar	1.02 kgf/cm ²
14.5 psi	1 bar · 33.52 ft of water

OCHP-2 · OCHP-5

Selection table

Pressure-boosting series · 50 Hz

OCHP-2

Model	kW	HP	Stages	Tank (L)	Draw-down (L)	Max. capacity (L/h)	Outlets (taps)	Pressure (kg/cm ²)	m ³ /h	0	0.8	1.6	2.5	3	3.5	4
									L/min	0	13	27	42	50	58	67
OCHP-2 0.55	0.75	4	36	15	2,000	3	1.7–3.0	HEAD (m)		36	34	30	25	20	17	12
OCHP-2 0.75	1	5	60	20	3,000	6	2.1–3.2			45	43	38	32	25	21	15
OCHP-2 0.93	1.25	6	36	15	1,600	3	3.0–5.1 ²			54	51	45	38	30	25	18
OCHP-2 0.93	1.25	6	60	20	3,000	6	2.5–3.8			54	51	45	38	30	25	18

OCHP-5

Model	kW	HP	Stages	Tank (L)	Draw-down (L)	Max. capacity (L/h)	Outlets (taps)	Pressure (kg/cm ²)	m ³ /h	0	2	4	6	7	8	9
									L/min	0	33	66	100	117	133	150
OCHP-5 0.75	1	3	24	9	1,000	2	1.6–2.5	HEAD (m)		27	23	20	16	13	10	6
OCHP-5 0.93	1.25	4	60	20	2,500	4	1.8–3.1			36	31	26	21	18	13	8
OCHP-5 1.1	1.5	5	80	29	4,000	8	2.2–3.9			45	39	33	27	22	16	10
OCHP-5 1.1	1.5	5	100	35	6,000	12	2.2–3.9			45	39	33	27	22	16	10
OCHP-5 1.5	2	6	36	15	2,000	4	3.2–5.0			54	46	40	32	26	19	12
OCHP-5 1.5	2	6	100	35	5,000	8	2.6–4.0			54	46	40	32	26	19	12

Suction & delivery 25 × 25 mm on all models. Pressure settings¹ apply with zero suction lift. Number of outlets (taps) is approximate. Min. / max. pressure setting in kg/cm². ² 5.1 kg/cm² exceeds the 5.0 bar max. operating pressure stated under operating limits — please confirm.

Head values are about 1 m lower than the equivalent bare OCH pump at every flow (as printed).

ACCESSORIES FOR PRESSURE-BOOSTING SYSTEMS

Pressure tanks



Oswal pressure tanks are designed for optimal performance: the butyl / natural-rubber membrane fitted in all models ensures smooth, trouble-free operation. The tanks provide a self-sustained supply of pressurised water in the pipeline for pressure-boosting applications in houses, apartments and hotels.

A pressure tank eliminates the need for overhead tanks and float switches. The electro-mechanical control switches the pump ON and OFF automatically whenever the pressure reaches the preset minimum and maximum levels. Smaller tanks are vertical and can be fixed directly to the pump outlet; bigger tanks are horizontal / vertical with legs, and the pump can be fitted on the platform on top. A 5-way connector, electro-mechanical control, hose connector and pressure gauge are the common accessories used with the tanks. The pre-charge pressure in the membrane is set according to the maximum operating head (in bar) of the pump.

Model code

O	T	V/H	24
Oswal	Tank	vertical / horizontal	capacity in litres

Advantages

- ✓ Frees you from operating the pump every time
- ✓ Eliminates the need for an overhead tank and float switch
- ✓ High-quality food-grade rubber membrane for hygienic water supply
- ✓ Uninterrupted water supply with adequate pressure
- ✓ Saves water, electricity and time
- ✓ Designed for easy installation

PRESSURE - TANK RANGE

Model	Type	Capacity (L)	Packing size (mm)	Gross / net weight (kg)	Connector
OTV 24	V	24	280 × 280 × 450	5 / 3.8	1"
OTH 24	H	24	300 × 280 × 450	5.5 / 4.5	1"
OTV 36	V	36	360 × 390 × 450	7 / 6	1"
OTH 36	H	36	360 × 360 × 550	6.5 / 5.5	1"
OTV 40	V	40	360 × 360 × 580	7.5 / 6.5	1"
OTH 40	H	40	360 × 390 × 480	8 / 7	1"
OTV 50	V	50	360 × 360 × 650	7.5 / 6	1"
OTH 50	H	50	355 × 390 × 560	7.5 / 6	1"
OTV 60	V	60	460 × 460 × 650	12 / 10.5	1"
OTH 60	H	60	480 × 455 × 490	12 / 10.5	1"
OTV 80	V	80	460 × 460 × 760	14 / 12	1"
OTH 80	H	80	480 × 455 × 600	14 / 12	1"
OTV 100	V	100	460 × 460 × 800	15 / 13	1"
OTH 100	H	100	480 × 455 × 680	15 / 13	1"

ACCESSORIES FOR PRESSURE-BOOSTING SYSTEMS

Electronic & mechanical pressure controls

ELECTRONIC PRESSURE CONTROL

Automatic Pressure Control

Regulates the water pressure in domestic supply systems. It switches the pump ON automatically when pressure drops in the pipeline and maintains the preset pressure; when the pipeline is closed it switches the pump OFF after a few seconds. The built-in check valve and logic circuit protect the pump from back-flow and dry running. Certain vertical models have a built-in adjustable pressure gauge.



Ambient temperature	max. +60 °C
Liquid temperature	max. +60 °C
Cut-in pressure	OPH 15, OPV 15: 1.5 bar OPH 22: 2.2 bar · OPV 3A: 1.5–3.0 bar
System pressure	max. 10 bar
Supply voltage	220 / 240 V
Frequency	50 / 60 Hz
Max. current	10 A
Enclosure class	IP65

SPECIAL FEATURES

- ✓ Frees you from operating the pump every time
- ✓ Uninterrupted water supply with adequate pressure
- ✓ Saves electricity and time
- ✓ Protects the pump from dry running and back-flow
- ✓ Different models to select — OPV models with built-in pressure gauge¹

For all kinds of small domestic pumps in apartments, houses, villas, gardens etc. Model code e.g. OPV 2.0: O = Oswal, P = pressure, V / H = vertical / horizontal, 2.0 = bar. ¹ Printed "CPV models" in the source.

MECHANICAL PRESSURE CONTROL

Pressure Switch

An electro-mechanical device that senses changes in pressure and switches the pump ON and OFF automatically at the preset minimum and maximum levels, keeping the system pressure within limits. Fits directly on small domestic pumps; available with male or female thread connections and three preset pressure ranges, selected according to pump capacity.



Lowest pressure	20 psi
Highest pressure	80 psi
Pressure settings	20–40 psi · 30–50 psi · 40–60 psi
Voltage	230 V AC
Max. current	2.0 HP – 12 A · 3.0 HP – 17 A
Connector threads	Male / female

1 bar = 1.02 kgf/cm² = 14.5 psi = 33.52 ft of water.

ACCESSORIES

Float switch



LEVEL CONTROL

Oswal Float Switch

Automatic level control for water tanks and sumps — it frees you from operating the pump and helps save water, electricity and time.

APPLICATIONS

- Houses
- Multi-storey apartments
- Factories
- Hospitals
- Hostels
- Commercial centres
- Hotels & restaurants
- Schools & colleges
- All places with water tanks

FEATURES

- ✓ Frees you from operating your pump every time
- ✓ Ensures uninterrupted water supply
- ✓ Never lets the overhead tank spill over or run empty
- ✓ Eliminates water, power and time wastage
- ✓ Protects the pump from dry running
- ✓ No rigid or fixed parts inside the tank — easy cleaning

SPECIFICATIONS

Max. current	10 (4) A / 16 (4) A
Voltage range	130–240 V AC, 1-phase
Frequency	50 / 60 Hz
Max. working temperature	55 °C
Degree of protection	IP68
Max. immersion depth	10 m
Cable	Rubber-insulated 3-core round cable
Cable size	1.0 & 1.5 mm ²
Cable length	1.5 m & 2.0 m
Specific gravity of liquid	0.9 to 1.3

GAUGE & CONNECTOR



Pressure gauge (kg/cm² and psi) and brass 5-way connector — standard accessories for pressure-tank installations.

Complete systems

Pump, tank, control and switch from one source.

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True Partner!

Oswal Pumps Limited

Pumps & Motors · Solar | Domestic | Agriculture | Industrial

PAN-INDIA PRESENCE



GLOBAL PRESENCE



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