

Surface Aerator



Low speed
Floating
Surface
aerator



High speed
Floating
Surface
aerator



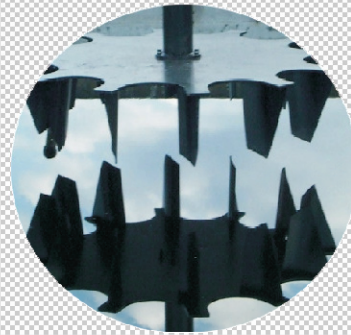
LOW speed
FIXED TYPE
Surface
aerator



NeoTech Water Solutions



High Efficiency
Surface Aerators



304, Shree Jalaram Complex,
Near G.I.D.C. Char Rasta,
Vapi-396 191. Gujarat, India,
Contact No. +91 9898767540

www.neotechwater.com
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Integrating Technical
Know How with wide experience
to provide best
Aeration Systems

Water Depth :Because of the high mixing efficiency of the our surface aerators, in most cases a system without sludge settlement can be guaranteed up to 4-5 meter water depth.

Aerosols :Studies prove that the amount of aerosols is obviously lower than with fine bubble aeration. In addition protection systems are available.

Noise load : Simple covers are available for the drive unit. For the Aerator different covers and bridge systems are available.

Energy-efficiency:Until 4 meter water depth absolute the most economic aeration system. In larger water depths, it will be often an economical solution, but each single case must be proved.

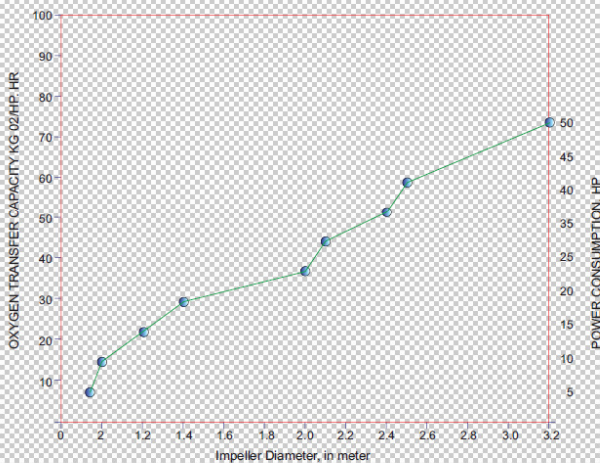
Performance Figures:				Hydraulic Parameters:			
Impeller Diameter mm	Speed rpm	Oxygen Transfer Kg/O ₂ .hr.	Power Hp	Splashing Diameter, mm	Splashing Height, mm	Velocity, m/sec	Discharge Capacity, m3/hr
700	107	8	5	3470	567	3.9	270
700	134	12	7.5	5050	890	4.91	337
1000	94	16	10	5360	893	4.92	482
1200	83	24	15	6100	1000	5.21	612
1400	75	32	20	6840	1115	5.49	752
1800	54	36	22.5	6460	955	5.09	896
2000	48	40	25	6540	932	5.02	986
2300	42	48	30	6900	943	5.05	1141
2400	42	56	35	7420	1027	5.278	1242
2500	42	64	40	7940	1115	5.49	1346
3200	32	80	50	8380	1060	5.36	1681



DESIGNING COMPLETE AERATION SYSTEM FOR HIGHER EFFICIENCY

The NeoMax design will comply to the following:

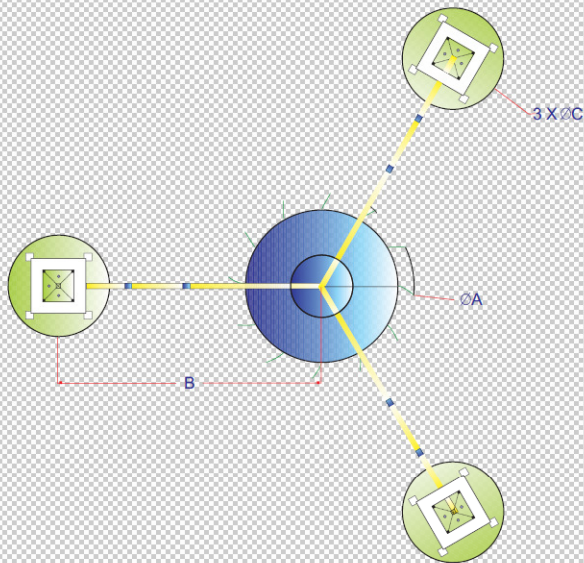
- The maximum tip speed of the impeller will not exceed 6.5 m/sec so that the possibility of sludge floc break-up is kept to a minimum.
- The entire weight of the impeller and shaft is suspended from and supported by the reducer drive shaft. No outboard support and steady necessary.
- The maximum hydraulic up thrust of the aerator at maximum performance will not exceed the total weight of the aerator impeller.
- Each aerator is provided with lifting eyes on the upper side and has steel hooks cast into the platform so that the aerator is held in position when the gear unit is removed or is being serviced



RANGE OF FLOATING SURFACE AERATORS

NeoFlowMax Floating Aerators:

In cases no bridge or platform construction is possible due to large water level changes; the installation with floaters is a possibility. Three floaters on a heavy load construction will allow the aerator to float itself. The aerator will be kept in its position by heavy steel cables. Installation is possible in all kind of square and round tanks.

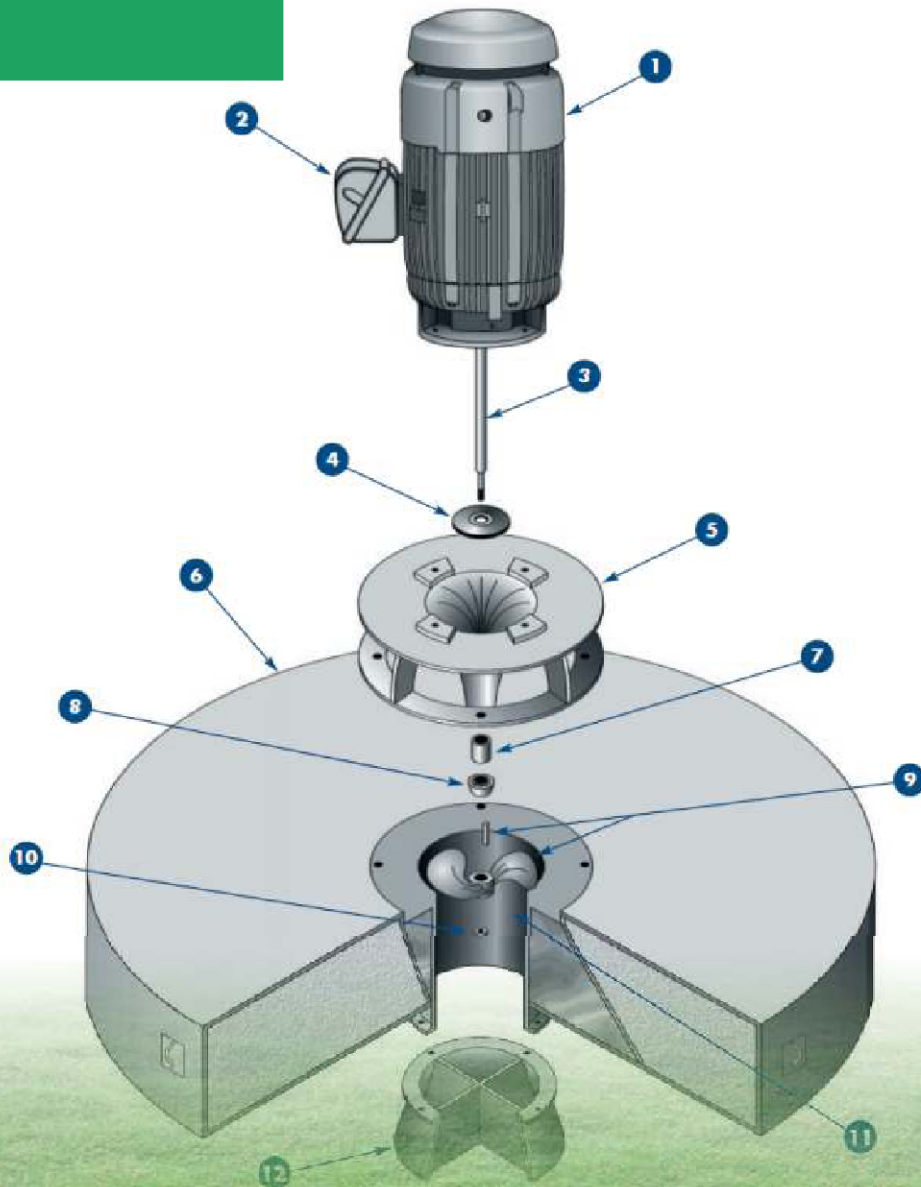


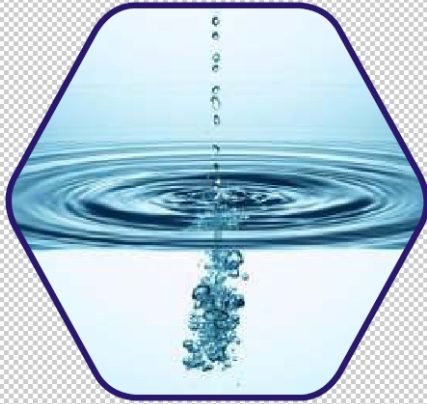
Model	Horse Power, Hp	O ₂ /Hour	A, inch	B, inch	C, inch
NMF 5	5	8	43	98	38
NMF 7.5	7.5	12	46	98	38
NMF 10	10	16	49	98	38
NMF 12.5	12.5	20	51	98	
NMF 15	15	24	52	98	38
NMF 20	20	32	57	98	38
NMF 25	25	40	74	130	40
NMF 30	30	48	78	130	40
NMF 40	40	64	83	169	43
NMF 50	50	80	96	169	46

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NeoMax Hx
High Speed Floating Aerator





The NeoMax Hx aerator is a high speed floating mechanical aerator for wastewater treatment. Powerful pumping action transfers oxygen by breaking up the wastewater into a spray of particles, creating more surface area for atmospheric pressure to drive oxygen into the wastewater. At the same time, the oxygen enriched water is dispersed and mixed.

The NeoMax Hx aerator can be used in municipal and industrial applications. The design is high efficient and most durable. It provides excellent oxygen transfer, low operating costs, trouble free performance.

BROAD RANGE OF APPLICATIONS:

NeoMax Hx aerators are used in a wide variety of installations . aerated lagoons, sequencing batch reactors (SBR), stabilization basins, activated sludge and aerobic digestion systems, as well as for stream aeration, reservoir stagnation prevention and upgrading existing ponds.

SALIENT FEATURES:

✍ Float is of fiberglass filled with high-density closed cell polyurethane foam making it lifelong with high safety factor for flotation. Even people can stand for maintenance on the float without any fear of the unit going ups and down.

✍ The Impeller is in Stainless Steel. It is Dynamically balanced, anti-fouling, non-cavitating, non clog Stainless Steel Propeller capable of achieving maximum aeration pumping and mixing. The Impeller pitch is designed for maximum hydraulic delivery without overloading the motor.

✍ Core (Intake chamber) is designed to retain more velocity energy in the fluid. This design feature also enables liquid to be drawn through the core at high velocity.

NeoMax Hx

High Speed Floating Aerator

NeoTech Water Solutions

1. MOTOR

- ✦ Totally enclosed, fan-cooled
- ✦ Heavy gauge cast iron fan shield
- ✦ IP 55, TEFC Motor
- ✦ Service factor of 1.15
- ✦ Standard or energy efficient available.
- ✦ Dynamically balanced and vibration tested
- ✦ Designed to meet the most demanding operational requirements

2. MOTOR JUNCTION BOX

Opening in motor housing for winding leads is completely as per the standard motor practice.

3. MOTOR SHAFT

Standard Machined Stainless Steel Shaft with coupling arrangements and propeller at the other end.

4. SEAL GUARD

Positioned below the bottom motor bearing to prevent moisture from migrating up the shaft into the lower bearing.

5. DISCHARGE CONE

✦ Our Heavy duty cast iron unit, designed for **maximum dispersion** at minimum of energy loss. The liquid hits the deflector and produces an area of high intensity spray diffusions, there by creating a large and continues air / water interface for oxygen transfer.

- ✦ Cast nickel iron, epoxy-coated
- ✦ Provides for lowest vibration levels
- ✦ Produces maximum diffusion of water particles
- ✦ 100% contact with the volute, which distributes both static and dynamic loads

6. FLOAT

- ✦ One-piece float available. Engineered to provide stability and better buoyancy
- ✦ Fiberglass reinforced polyester (FRP), Filled with closed-cell polyurethane foam that adds structural stability and prevents the possibility of sinking if damage occurs to the float exterior.

7. DEFLECTOR BEARING/SEAL

- ✦ Shaft runs free under normal operating conditions
- ✦ Provides support only when under load

8. DEFLECTOR BUSH

Machined for smooth fluid passage over the surface

9. PROPELLER

- ✦ Precision investment casting
- ✦ 304/316 stainless steel
- ✦ Dynamically balanced
- ✦ Secured to shaft by stainless steel locking nut
- ✦ Simple installation or removal
- ✦ Anti-fouling, non-cavitating for greater operational efficiency

10. LOCKING NUT

- ✦ Stainless steel
- ✦ Firmly and securely locks the propeller to the shaft
- ✦ Just two tools required to install or remove the propeller

11. VOLUTE

- ✦ 304 stainless steel / Casting
- ✦ All sizes have bottom flange for simple bolt-on attachment of the standard intake cone or optional anti-erosion assembly or draft tube. Gussets at top and bottom flanges add strength

12. INTAKE CONE

- ✦ 304 stainless steel / FRP / Casting
- ✦ Hydraulically designed for proper loading on propeller
- ✦ Sufficiently sturdy to support assembled aerator on hard, flat surface