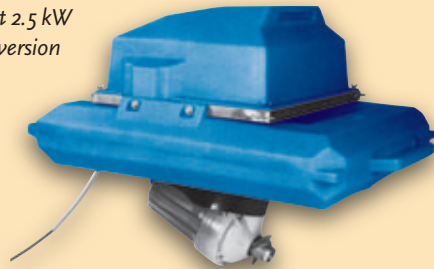


Turbo-Jet floating



Turbo-Jet 2.5 kW

Turbo-Jet 2.5 kW
floating version



TURBO-JET – The economical and efficient choice for the aeration and circulation of waste water

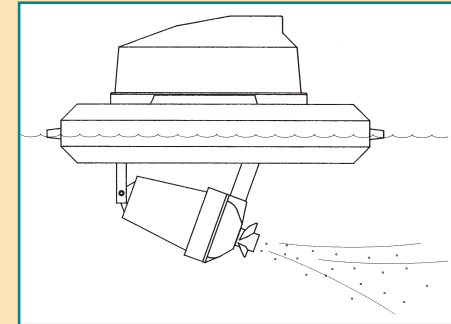
- for Original Equipment Manufacturers
- for increasing capacity
- for complementing existing purification plants
- bio reactors in purification plants
- oxidation-channels
- oxygen-enrichment of waste water ponds
- rain-storage reservoirs

Powerful water circulation with air-injection for waste water

TURBO-JET operates silently under the surface of the waste water. The robust submersible motor with its axial propeller produces an enormous water circulation with low energy consumption.

The high velocity of the resulting powerful water jet creates a vacuum behind the propeller. Air is drawn from the atmosphere, broken into tiny bubbles and propelled into the jet stream. The fine air-bubbles have a long residence time underwater, guaranteeing high oxygen transfer.

By creating enormous circulation and satisfying the oxygen requirements simply, **TURBO-JET** offers ideal conditions for the nitrification and reduction of BOD of effluents.



As a result, separate flow makers are unnecessary in most cases. Air flow is controllable for mixing-aeration or mixing only.

The **TURBO-JET** aeration system offers many benefits, including excellent versatility and flexibility. In most cases, **TURBO-JET** is supplied preassembled. Any installation that is necessary is minimal, and can be done by the staff of purification plants. Thus, it is also cost-saving.

All the equipment is supplied completely wired, ready for operation (standard-type with motor-protection-plug – you only have to plug and play).

If it is necessary to connect the **TURBO-JET** to switch gear it can be supplied with a bare cable end (cable-length available to requirements). The fitter simply has to connect it to the switch gear and eventually has to switch the clock relay.



Turbo-Jet 1.1 kW floating – parallel operation



Turbo-Jet 1.1 kW – three aerators working in an oxidation-pond

The aeration-mechanism

The active component of the **TURBO-JET** aeration system is the aeration mechanism. Its heart is the robust submersible motor (protection IP 68). All materials are of high quality and are heavy-duty for the tough environment of waste water.

The motor casing is made from grey cast (GG 25) and is robust and solid. The motor shaft and screws are made from stainless steel. The sealing mechanism of the motor is a mechanical seal in an bath (vegetable engine oil).

The vacuum chamber is also made from grey cast (GG 25). The seal of the vacuum chamber is a high quality Viton-sealing-ring with a stainless steel spring. The sealing-ring is attached to the special tubing, placed around the propeller. This ensures long operating life!

The propeller is specially made for operation in the harsh waste water environment. It is made from especially selected hard bronze-alloy, and is virtually wear-free. The propeller is shaped to prevent blockages and build up of surface deposits. Thus, free flow from the propeller maintains air-water mixing and trouble-free, continuous operation.

TURBO-JET floating version

The floating version of the **TURBO-JET** is the easiest to use. This sewage aerator is supplied ready for use. The aeration mechanism and the float form a compact unit, securely fitted together. The float has handles for the easy carrying and installing of the aerator, without hoist. Handling is easy and simple.

The float is hollow, and very robustly made from polyethylene. In fact, it is so tough that foaming is unnecessary, unlike floats made from GRP!

The floating version of **TURBO-JET** is ideal for increasing capacity or retrofitting, but also for Original Equipment Manufacturers.

Providing that there is suitable existing electricity supply, no further installation is necessary. The floating **TURBO-JET** is simply lifted onto the water, pulled into the desired position with the high-grade steel ropes, and anchored to the side (for example with pegs). Then, it is only a matter of connecting to the power source.

Technical

Motor rating	kW	1.1	2.5	4.0
Power take-up	W	1500	3000	5300
Voltage	V	400	400	400
Motor	rpm	2900		
Active zone	m	70	85	100
Water delivery	m ³ /h	300	500	750
Air delivery	m ³ /h	30	60	85
Motor case		grey cast		
Vacuum-casing		grey cast		
Propeller		bronze		
Air supply		stainless steel		
Float		U-float 97 x 76 cm		
Dimensions/height	cm	85	85	90
Weight	kg	45	62	70
Oxygen enrichment	kg/h	0.9	1.8	3.18

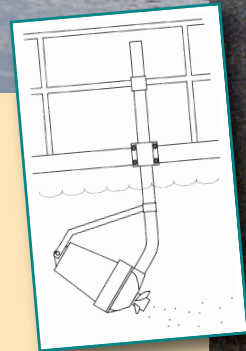
special version –
to use in closed
tanks with
manhole



ADVANTAGES:

- flexible and versatile
- minimal energy-consumption
- optimal oxygen-enrichment
- best possible circulation
- low capital cost – quickly amortised
- easily serviced
- no complicated installation
- no installation of air-pipes
- ready to use

Turbo-Jet stationary



TURBO-JET with hinged, high-grade steel fixing

The aerator mechanism is also made with a stainless steel bracket for mounting to existing structures (e.g. bridges). This design can be used for retrofits or OEM.

Again, the aerator is supplied complete, ready for use.

The aeration mechanism can be adjusted horizontally or vertically for optimal performance. The mounting brackets allow easy removal of the aerator mechanism for maintenance. The robust stainless steel fixing pipe doubles as an air intake pipe.

This **TURBO-JET** version is most effective, and has the greatest oxygen transfer when the propeller operates 40 – 50 cm below the surface of the waste water. The brackets can be custom-made, if required, to suit the available fixing points of the site.

*Turbo-Jet
stationary 1.1 kW*



mounting Turbo-Jet in a covered basin
(refitted small water clarification plants) only mounting visible
manual dismantling without emptying the basin

TURBO-JET with a two-part stainless steel mounting

We have been producing **TURBO-JET** with smaller engine power for many years, for activation basin of small water clarification plants or compact plants for sewage treatment. We have a lot of customers, both suppliers and manufacturers, who are completely satisfied with our compact plants for sewage treatment.

This device version has proved to be efficient a hundred times in the daily treatment of waste water.

In contrast to the bigger devices we here deliver the propeller, the vacuum chamber and an air supply of plastic.

This material assures the desired reliable working.

As standard version we mount the aeration unit to a two-part stainless steel mounting. One part of the mounting is screwed onto the wall of the basin.

The real part of aeration is mounted to the second part of the mounting; it is to put in with a pin in the wall and is fastened (fixed) on top with two wing screws. This mounting assures the easy replaceability – without emptying the basin !

Of course, we can even manufacture or adapt the final design of the mounting according to your wishes and to the local conditions.



ADVANTAGES:

- optimal oxygenation
- careful mixing
- quickly to mount
- nearly noiseless
- low purchase cost

Technical

Motor rating	kW	1.1	2.5	4.0
Power take-up	W	1500	3000	5300
Voltage	V	400	400	400
Motor	rpm	2900		
Active zone	m	70	85	100
Water delivery	m ³ /h	300	500	750
Air delivery	m ³ /h	30	60	85
Motor case		grey cast		
Vacuum-casing		grey cast		
Propeller		bronze		
Air supply		stainless steel		

Technical

Motor rating	kW	0.55	0.75	1.1
Power take-up	W	820	1100	1500
Voltage	V	400	400	400
Motor	rpm	2900		
Active zone	m	30	50	70
Water delivery	m ³ /h	160	250	300
Air delivery	m ³ /h	15	25	30
Motor case		grey cast		
Vacuum-casing		plastic		
Propeller		plastic		
Air supply		plastic		