

Submersible Aerator Type ABS XTA and XTAK

The submersible aerators type ABS XTA / XTAK are suitable for all gas-liquid reactions at temperatures below 40 °C (104 °F) and pressures below 2 bar (29 psi) absolute.

60 Hz

Applications in sewage and water treatment

Mixing and equalizing basins: Equalizing of wastewater pollution load and wastewater quantities, as well as avoidance of odour problems.

Activated sludge basins and SBR reactors: Biological degradation of organic substances.

Sludge stabilisation: Avoidance of odour problems as well as further oxidation of the organic substances.

Flotation: Flotation of oil and grease.

Lagoon aeration: Improvement of natural aeration.

Neutralization: Neutralization of alkaline wastewater with CO₂ or flue gas.

Special applications: Aeration with pure oxygen or ozone.

The submersible aerator is positioned on the bottom of the basin without anchorage. For maintenance and inspection work the aerator can be lifted by means of a mobile crane.

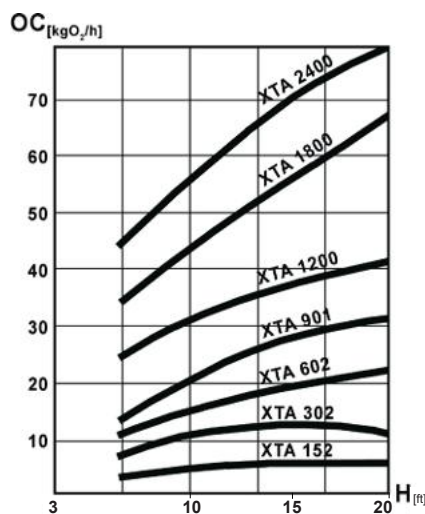


Construction

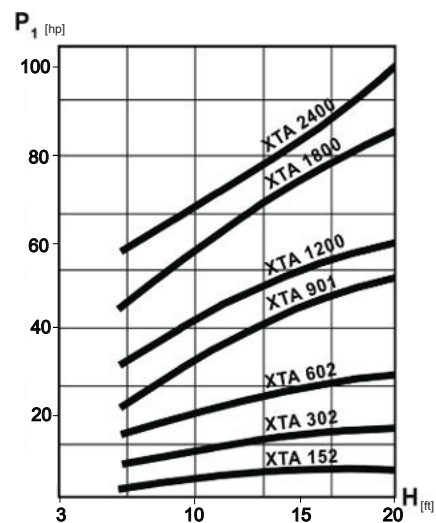
- Easy and quick installation without emptying the tank.
- No aerosol effect and no sedimentation on the bottom of the basin.
- Good oxygen transfer (SOTR) and aeration efficiency values (SAE).
- Self-cleaning system.
- Replaceable wear parts.

Oxygen transfer, self-aspirating

Under standard conditions (20 °C / 68 °F, 1013 mbar / 14.7 psi), optimal positioning.



Power consumption, self-aspirating



Technical data 460V, 60 Hz

Hydraulics	Motor	Rated motor power *		Rated current (A)	Speed at 60 hz (min ⁻¹)	Immersion depth max. (m/ft)	Weight	
		P ₁ (kW/hp)	P ₂ (kW/hp)				XTA (kg/lbs)	XTAK (kg/lbs)
XTA 152	PE 45/4	5.0 / 6.7	4.5 / 6.0	8.2	1770	2.5 / 8.2	130 / 286	-
XTA 152	PE 75/4	8.2 / 11.0	7.5 / 10.1	13.8	1770	5.0 / 16.4	140 / 309	-
XTA 302	PE 105/4	11.4 / 15.2	10.5 / 14.1	17.7	1770	5.0 / 16.4	180 / 397	-
XTA 302	PE 130/4	13.4 / 18.0	13.0 / 17.4	23.2	1780	7.0 / 23.0	300 / 661	-
XTA/XTAK 602	PE 185/4	19.8 / 26.5	18.5 / 24.8	32.3	1780	4.5 / 14.8	340 / 750	400 / 882
XTA/XTAK 602	PE 210/4	22.5 / 30.1	21.0 / 28.2	35.4	1780	6.0 / 19.7	350 / 772	410 / 904
XTA/XTAK 901	PE 250/4	26.7 / 35.8	25.0 / 33.5	40.8	1780	3.5 / 11.5	306 / 675	361 / 796
XTA/XTAK 901	PE 350/4	37.0 / 49.7	35.0 / 46.9	58.1	1780	5.5 / 18.0	316 / 697	371 / 818
XTA/XTAK 1200	PE 350/4	37.0 / 49.7	35.0 / 46.9	58.1	1780	3.5 / 11.5	371 / 818	441 / 972
XTA/XTAK 1200	PE 430/4	45.3 / 60.7	43.0 / 57.7	65.9	1780	5.5 / 18.0	535 / 1179	605 / 1334
XTA/XTAK 1200	PE 520/4	54.7 / 73.4	52.0 / 69.7	78.0	1780	8.0 / 26.2	540 / 1190	615 / 1356
XTA/XTAK 1800	PE 520/4	54.7 / 73.4	52.0 / 69.7	78.0	1780	4.0 / 13.1	545 / 1201	620 / 1367
XTA/XTAK 1800	PE 630/4	66.1 / 88.6	63.0 / 84.5	89.8	1780	7.0 / 23.0	790 / 1742	865 / 1907
XTA/XTAK 2400	PE 630/4	66.1 / 88.6	63.0 / 84.5	89.8	1780	4.0 / 13.1	820 / 1808	895 / 1973
XTA/XTAK 2400	PE 860/4	90.2 / 120.9	86.0 / 115.3	125.0	1780	7.5 / 24.6	835 / 1841	910 / 2006

* P₁ = Power taken from mains. P₂ = Power at motor shaft.

Materials

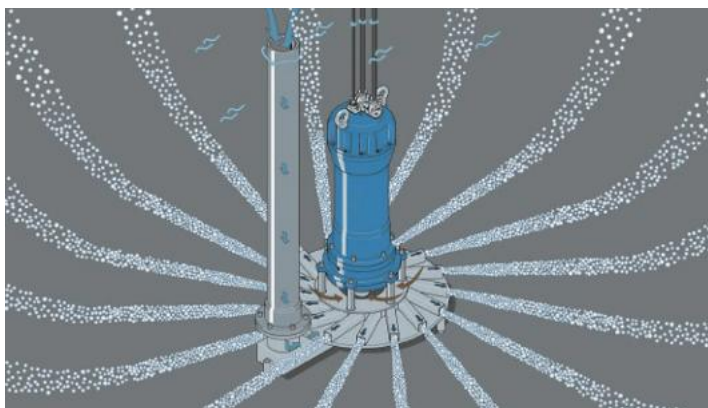
Motor housing	Cast iron EN-GJL-250 (GG-25) / ASTM A48, Class 35 B
Motor shaft	Stainless steel 1.4021 / AISI 420
Fasteners (in contact with medium)	Stainless steel 1.4401 / AISI 316
Aerator parts (XTA 152 - XTA 2400)	Stainless steel 1.4301 / AISI 304
Bushing	Bronze

Options: exposed aerator parts hard chrome plated. Special materials on request.

Operation principle

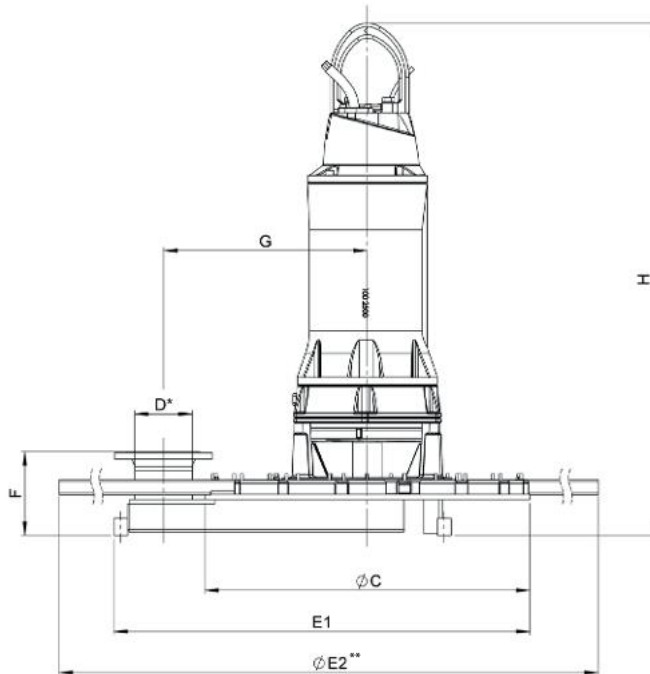
The submersible aerator type ABS XTA / XTAK is a submerged motor, blower, pump and mixer, all combined in one unit. It consists of a starshaped impeller directly connected to the motor shaft, a stator surrounding the impeller as well as an air pipe to atmosphere. The impeller rotates inside the stator creating a vacuum and automatically aspirating air through the air pipe. At the same time, water flows into the impeller, is thoroughly mixed with the air and radially discharged through the channels of the stator. This system ensures fine bubbles.

XTAK = extended channels increase SOTR and SAE values up to 15 - 20 %.



Dimensions (mm / ins)

Aerator	Ø C	D	E1	Ø E2	F	G	H
XTA 152 PE 45/4	500 / 19.7	DN 80 / 3	675 / 26.6	-	185 / 7.3	250 / 9.8	820 / 32.3
XTA 152 PE 75/4	690 / 27.2	DN 80 / 3	865 / 34.1	-	220 / 8.7	347 / 13.7	820 / 32.3
XTA 302 PE 105/4	690 / 27.2	DN 80 / 3	865 / 34.1	-	220 / 8.7	347 / 13.7	890 / 35.0
XTA 302 PE 130/4	720 / 28.4	DN 100 / 4	940 / 37.0	3710 / 146.1	240 / 9.5	397 / 15.6	1325 / 52.2
XTA/XTAK 602 PE 185/4	720 / 28.4	DN 100 / 4	940 / 37.0	3710 / 146.1	240 / 9.5	397 / 15.6	1325 / 52.2
XTA/XTAK 602 PE 210/4	840 / 33.1	DN 125 / 5	1065 / 41.9	3845 / 151.4	250 / 9.8	510 / 20.1	1490 / 58.7
XTA/XTAK 901 PE 250/4	840 / 33.1	DN 125 / 5	1065 / 41.9	3845 / 151.4	250 / 9.8	510 / 20.1	1490 / 58.7
XTA/XTAK 901 PE 350/4	950 / 37.4	DN 150 / 6	1215 / 47.8	3930 / 154.7	245 / 9.7	595 / 23.4	1495 / 58.9
XTA/XTAK 1200 PE 350/4	950 / 37.4	DN 150 / 6	1215 / 47.8	3930 / 154.7	245 / 9.7	595 / 23.4	1495 / 58.9
XTA/XTAK 1200 PE 430/4	950 / 37.4	DN 150 / 6	1215 / 47.8	3930 / 154.7	245 / 9.7	595 / 23.4	1575 / 62.0
XTA/XTAK 1200 PE 520/4	950 / 37.4	DN 150 / 6	1215 / 47.8	4135 / 162.8	245 / 9.7	595 / 23.4	1570 / 61.8
XTA/XTAK 1800 PE 520/4	950 / 37.4	DN 150 / 6	1215 / 47.8	4135 / 162.8	245 / 9.7	595 / 23.4	1570 / 61.8
XTA/XTAK 1800 PE 630/4	950 / 37.4	DN 150 / 6	1215 / 47.8	4135 / 162.8	245 / 9.7	595 / 23.4	1960 / 77.2
XTA/XTAK 2400 PE 630/4	1050 / 41.3	DN 150 / 6	1345 / 53.0	4025 / 158.5	270 / 10.6	650 / 25.6	1950 / 76.8
XTA/XTAK 2400 PE 860/4	1050 / 41.3	DN 150 / 6	1345 / 53.0	4025 / 158.5	270 / 10.6	650 / 25.6	1950 / 76.8



* Flanges according to DIN 1092-1, PN 16.

** With XTAK extensions.

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