

# HBA - Highspeed Bottom Aerator

## Radial Submerged Aerators from 0,8 up to 75 kW



### Product description

- Direct drive submerged high efficiency aerator, available with or without channel extensions
- Self-aspirating
- High oxygen transfer rates and optimal mixing capacity in deep basins

### Applications

- Homogenisation and equalization tanks
- SBR plants
- Activated sludge plants
- Aerobic digesters
- Flotation of greases, oils and solids

### Advantages

- Extended unit lifetime and low maintenance (no gearbox)
- Motor (50 or 60 Hz) in IP68
- Oil chamber leakage control and thermal protection for devices from 4 kW (thermal protection on request for smaller motors)
- High oxygen transfer in wastewater due to high  $\alpha$ -factor
- No dead zones due to high mixing capacity
- Low aerosol emissions
- Simple and quick installation even in filled basins
- No need of anchoring or support structures
- Low investment cost for the complete installation

### Materials

- Motor body: cast iron G25
- Motor shaft: AISI 420
- Impeller: AISI 316/304
- Diffuser, channels (only type -C), intake chamber, screws: AISI304

### Working principle

The impeller rotating inside the mixing chamber aspirates water through the opening between the motor and the stainless steel body of the unit. By accelerating the water radially 360° through the outlet channels a vacuum is created inside the mixing chamber. This vacuum induces a flow of air into the chamber from above the water level through the aspiration pipe. This aspirated air is mixed with the water to very fine bubbles inside the mixing chamber and then ejected through the outlet channels. The strong density induced flow creates a perfect mixing pattern and oxygen distribution in the tank. Extension channels (option type -C) will optimize oxygen transfer and oxygen distribution.



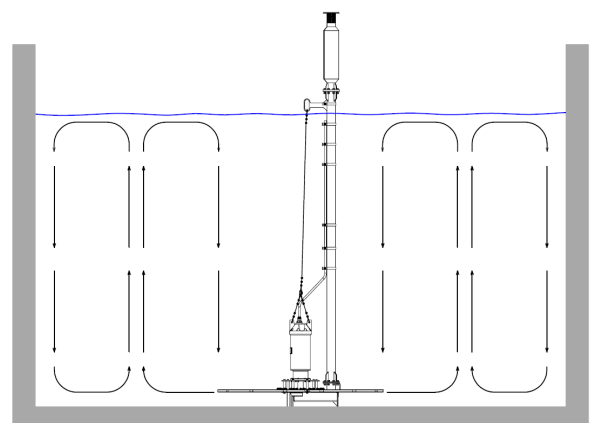
Type HBA without extension channels



Type HBA-C with extension channels

### Accessories

- Aspiration pipe
- Protective grid for aspiration pipe
- Lifting hook for aspiration pipe
- Silencer
- Lifting system



**Electrical Data and Working Area<sup>1</sup>**

<b>Aerator Type<sup>2</sup></b>	<b>Motor power [kW]</b>	<b>Rated current<sup>3</sup> [A]</b>	<b>Speed<sup>3</sup> [min<sup>-1</sup>]</b>	<b>∅ Intake pipe [mm]</b>	<b>Max. Water level [m]</b>
<b>HBA-008</b>	0,8	2,6	1320	32	2,50
<b>HBA-015</b>	1,5	4,2	1360	32	5,00
<b>HBA-030 (-C)</b>	3,15	7,8	1395	32	5,00
<b>HBA-040 (-C)</b>	4,0	9,3	1400	80	6,00
<b>HBA-055 (-C)</b>	5,5	12,4	1410	80	6,00
<b>HBA-075 (-C)</b>	7,5	18,5	1425	80	6,00
<b>HBA-090 (-C)</b>	9,0	19,0	1435	80	6,00
<b>HBA-110 (-C)</b>	11,0	23,0	1435	100	7,00
<b>HBA-150 (-C)</b>	15,0	30,5	1450	100	7,00
<b>HBA-185 (-C)</b>	18,5	37,5	1455	100	7,00
<b>HBA-220 (-C)</b>	22,0	44,0	1460	100	7,00
<b>HBA-300 (-C)</b>	30,0	59,0	1460	125	7,00
<b>HBA-370 (-C)</b>	37,0	71,5	1465	125	7,00
<b>HBA-450 (-C)</b>	45,0	82,0	1475	150	7,00
<b>HBA-550 (-C)</b>	55,0	104,0	1475	150	7,00
<b>HBA-750 (-C)</b>	75,0	138,0	1475	150	8,00

<sup>1</sup> All values are indicative. ATB WATER GmbH reserves the right to adjust these values at any time without prior notice.

<sup>2</sup> -C = with extension channels

<sup>3</sup> Values valid for power supply 400 V / 50 Hz. The working range is from 380 to 415 V, amps value and rotation speed may differ.