

Low Noise Axial Fan Impellers

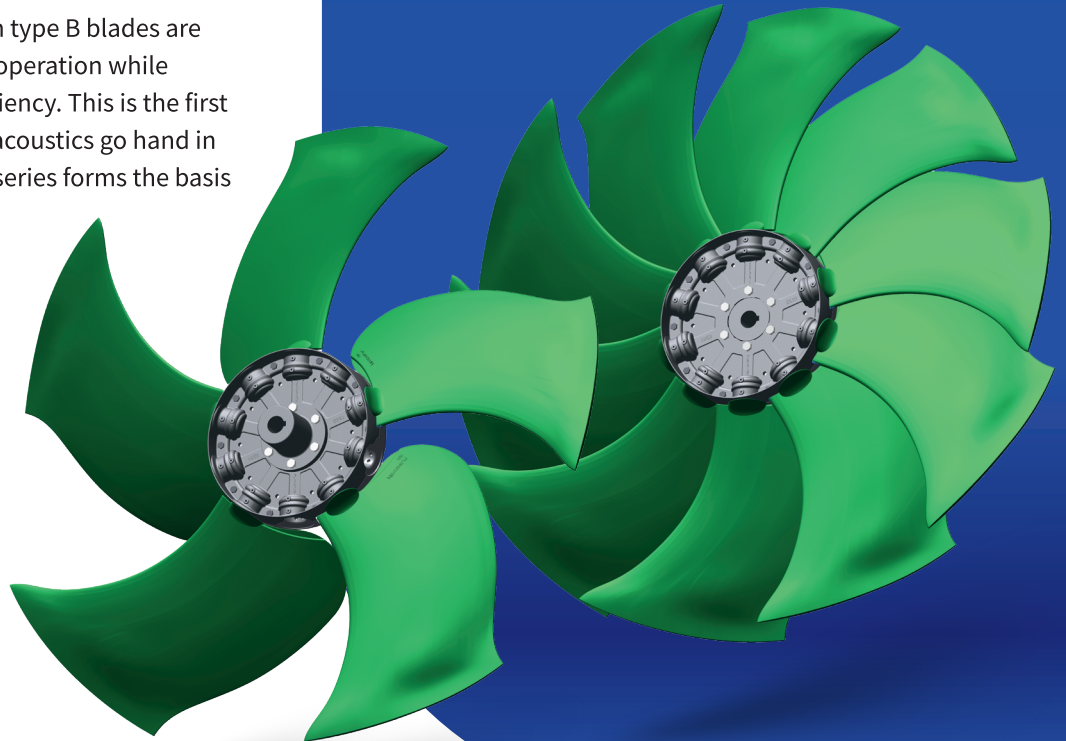
Impeller diameter range:
Ø788–1248mm / Ø31.0–49.13in

Planetfan axial fan impellers with type B blades are designed for maximum low noise operation while maintaining very high energy efficiency. This is the first blade design worldwide in which acoustics go hand in hand with efficiency. The B blade series forms the basis of low-noise axial fan impellers with no compromises.

Developed in Planetfan's aerodynamic laboratory, the sickle-shaped blade features a variable aerodynamic profile. A carefully selected combination of profiles optimizes the airflow across the entire blade, delivering exceptionally low noise levels and remarkably high efficiency.

PLANETFAN

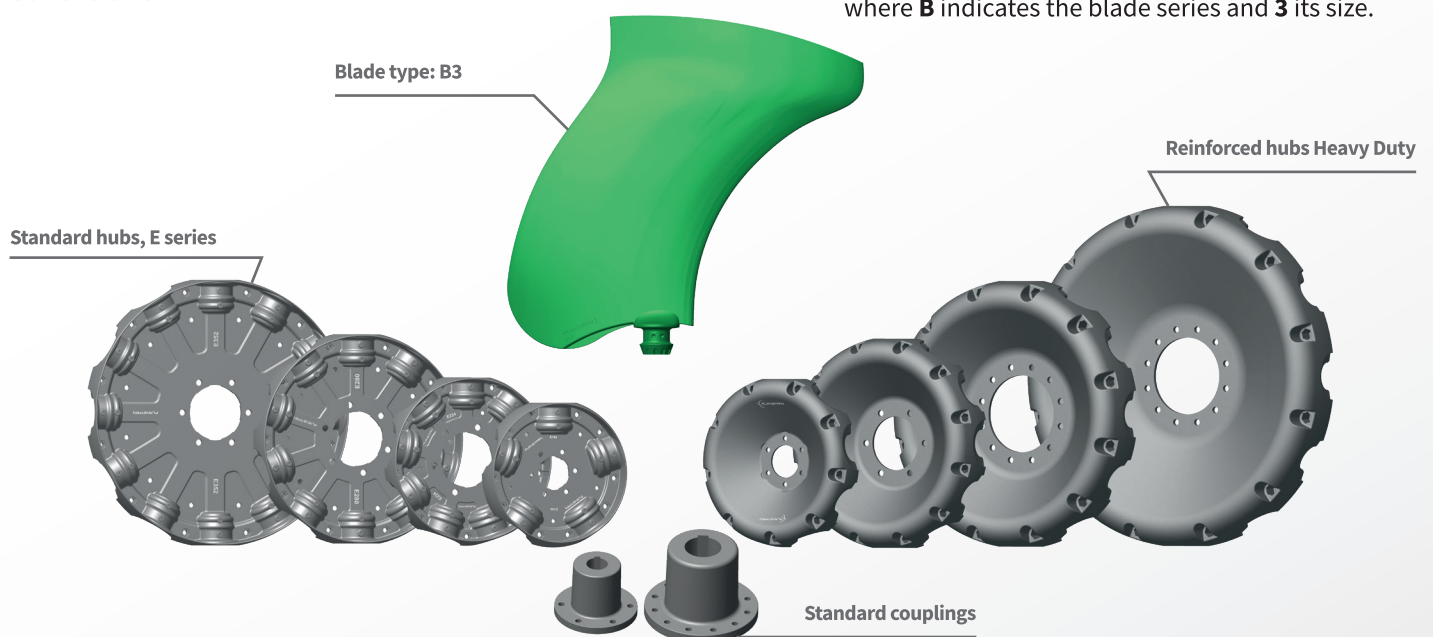
Lowest noise.
Outstanding efficiency.
No compromises



The mechanical design of B-series axial fan impeller blades is an advanced aerodynamic concept, ensuring high durability, reliability, and long service life, even in demanding operating conditions.

Ultra-low-noise axial fan impellers are available with a single blade size B3 and in eight hub variants.

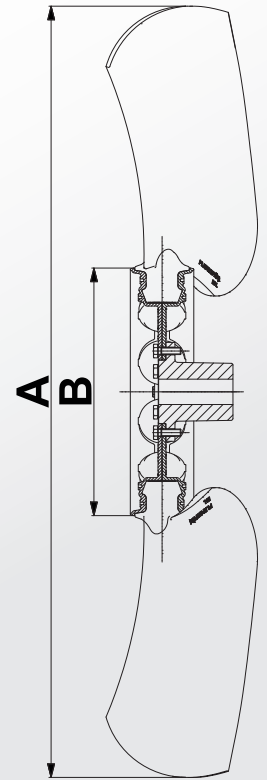
The **B3** designation defines the blade type and size, where **B** indicates the blade series and **3** its size.



Hubs are available in standard, industrial (E series) and reinforced (Heavy-Duty) versions. The standard design offers an optimal strength-to-weight ratio, while the Heavy-Duty variant is engineered for operation under increased loads and in demanding environmental conditions.

Impeller dimensions

Blade type	Hub type		Hub diameter B		Maximum number of blades	Maximum impeller diameter A	
	Serie E	Serie HD	[mm]	[in]		[mm]	[in]
B3	E194/5	—	194	7.63	5	996	39.21
	E224/9	224/9	224	8.81	9	1026	40.39
	E280/10	280/12	280	11.02	10/12	1082	42.59
	E352/12	352/12	352	13.85	12	1154	45.43
	—	448/12	448	17.63	12	1248	49.13



Materials

Impeller hubs are standardly manufactured from an industrial die-cast aluminium alloy. B-series axial fan impeller blades are available in the following material versions:

- **PAG – glass-fiber reinforced polyamide** → Operating temperature range: from -40°C to +120°C
- **PAGEX – glass-fiber reinforced polyamide with properties suitable for ATEX applications** → Operating temperature range: from -40°C to +120°C

Example impeller code

WO1000(E280)/10-5/B3/L/24/PAG/28H7/82/8/SW

1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12
Axial impeller	Impeller diameter [mm]	Hub type	Number of slots and blades	Blade type	Direction of rotation: L › left, R › right	Blade pitch angle	Blade material	Shaft hole diameter	Coupling length	Shaft key width	Flow direction

Applications

Planetfan axial fan impellers with type B blades are designed for applications where low noise levels and low electrical energy consumption are essential. Typical industries include:

Refrigeration and heat exchange:	Cooling towers Dry coolers Industrial heat pumps
Ventilation and fan technology:	Axial fans Drying systems
Agriculture:	Sprayers Agricultural ventilation systems

General

Planetfan impellers are the result of advanced engineering development combined with many years of research and prototype testing conducted in aerodynamic test tunnels. The comprehensively aerodynamically optimized design delivers exceptionally high static efficiency, placing Planetfan products among the world's leading and most efficient industrial axial fan impellers available on the market.

Key features of the impellers:

- Number of blades: **3 | 4 | 5 | 6 | 9 | 10 | 12**
- Variable blade pitch, adjustment **at standstill**
- Standard pitch adjustment increment: **2°**
- Blade pitch angle range: **16° – 38°**
- Maximum blade tip speed: **65 m/s (213 ft/s)**
- Operating temperature range: **from -60°C to +120°C (from -76°F to +248°F)**

IMPELLER ROTATION DIRECTION: LEFT-HAND BLADES

HIGH IMPELLER EFFICIENCY MEANS LOWER ELECTRICAL ENERGY CONSUMPTION.

YES! The world's No. 1. in low-noise, high-efficiency impellers!