

punker^g

THE NEW PUNKER D-SERIES

Discover our industry leader.



SURPRISINGLY

VERSATILE



THE NEW PUNKER D-SERIES

Discover our industry leader – maximum durability, extremely versatile with an unbeatable price-performance ratio.

The three punker D-Series models are perfect for all unoused HVAC applications. Smooth, efficient and extremely cost effective, they provide versatility to any situation at any time.

Runs like a charm.

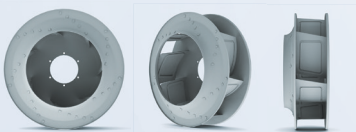


FOCUS ON: EFFICIENCY

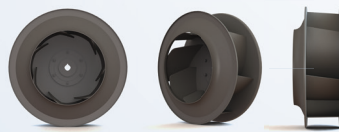
- ▶ Very high static efficiency due to the eponymous diffuser
- ▶ Highest durability and optimal material input
- ▶ Ideal for pressure ranges from 4 in. WG up to 16 in. WG
- ▶ Suited for ventilation performance areas according to AMCA classes I, II, III
- ▶ Compatible with various motors due to selectable impeller-motor-connection
- ▶ Applicable with/without variable speed drive (VSD)

The D-Series' models are available in 16 sizes from 9 to 49 7/32" diameter (225 to 1,250 mm) in one fixed width. The corresponding inlet cone ED 11 is equipped with blind rivet nuts for pressure tapping.

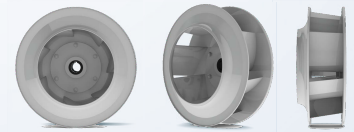
Dlight – our aluminum
lightweight



Dclassic – our standard
welded steel



Dprime – our champion
for all major challenges



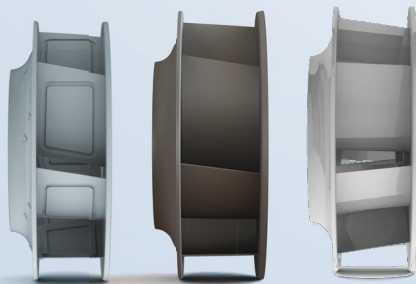
DON'T SQUANDER YOUR MONEY

Forward-curved impellers, as are still customary, require a spiral housing and therefore are high maintenance. They are also energetically inefficient, entail high motor power and are very loud. That'll cost you.

Backward-curved wheels with a spiral housing are more efficient and require less motor power. These, too, entail high maintenance costs and require a lot of space. That is uneconomical – especially in the long run.

This is why we developed the punker D-Series' wheels with an integrated diffuser. They are suitable for unhoused applications, highly efficient, low maintenance and very quiet.

That pays off.



THE PUNKER D-SERIES

- ▶ Super silent
- ▶ Absolutely efficient
- ▶ Tremendously low-cost
- ▶ Extremely robust
- ▶ Remarkably small
- ▶ Exceedingly light

THE NEW PUNKER DIFFUSER TECHNOLOGY

Our D-Series' special feature: the Diffuser.

It's unique design reduces the velocity of the air leaving the impeller, turning dynamic into static and therefore usable pressure. This way, the D-Series wheels reach a static efficiency of up to 75% (83% total efficiency), helping you reach any energy efficiency standard – all of this without the use of a spiral housing.

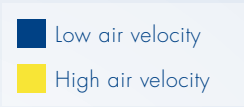
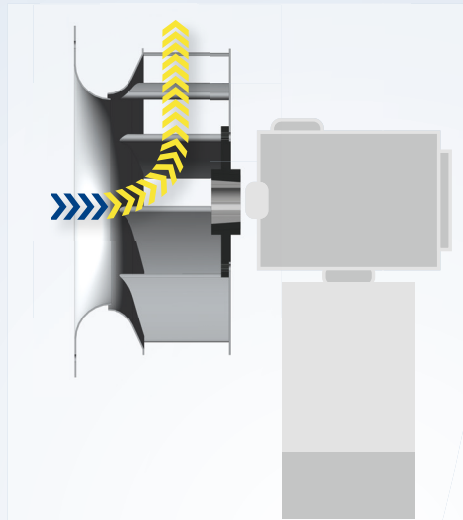
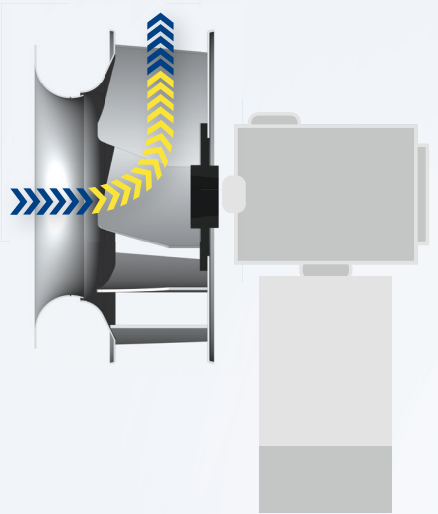
For maximum efficiency and minimum sound emissions.

FAN WHEEL EFFICIENCY IN PLENUM FANS

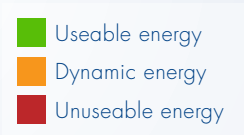
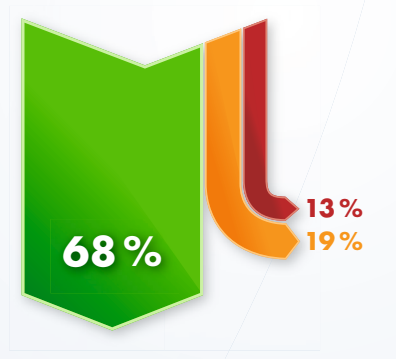
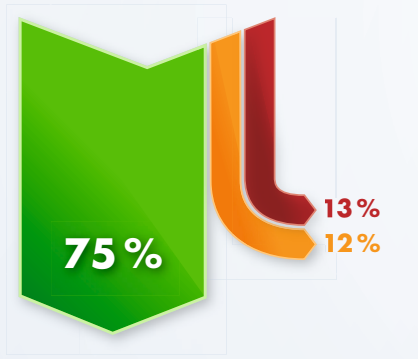
punker Diffusor Wheel (D-Series)

Airfoil Wheel

AIR VELOCITY PLOT



ENERGY BALANCE



OUR LIGHTWEIGHT: **D**light

The Dlight fan wheel is well suited for unhooded applications that require a static pressure increase of 4 to 5.5 in. WG (AMCA Class I). For these applications, the tabbed aluminum model Dlight provides high ventilation system performance and good acoustics while remaining low weight and highly durable.

This makes the Dlight compatible with external rotor motors, allowing for extremely compact application designs.



EXCEEDINGLY LIGHT

- ▶ Tabbed aluminum design
- ▶ Max. static efficiency 73% (80% total efficiency)
- ▶ Pressure ranges up to 5.5 in. WG (AMCA Class I)
- ▶ Max. rotational speed 180 fps (2,650 rpm for 16" type)

PROPERTIES

- ▶ Blower wheel for use in unhooded applications
- ▶ Efficiency: up to 73% static efficiency (80% total efficiency) without scroll housing
- ▶ Max. rotational speed: 180 fps
- ▶ Circular diffuser provides optimal performance data
- ▶ Compatible with various PM/DC/EC/AC-motors; 50/60 Hz; with/without VSD

APPLICATIONS

- ▶ HVAC applications
- ▶ Air Handling Units (AHU)
- ▶ Building ventilation systems
- ▶ Plug fans
- ▶ Plenum fans
- ▶ Compressor cooling

TECHNICAL DATA

Models	Standard model sizes available in 10 different diameters and one standard width
Diameter	9" to 25" (225 mm to 630 mm)
Material	Aluminum
Production process	Tabbed design
Construction	Single width
Inlet cone	ED 11 with blind rivet nut for pressure tapping
Mounting	Taperlock hub or variable pitch circle diameter (PCD)

OUR STANDARD STEEL: **D classic**

With Dclassic, punker offers the optimal fan wheel for unhooused applications that require a static pressure increase of 6 to 10 in. WG (AMCA Class II). Thanks to the welded steel design, Dclassic can be used for high rotational speeds up to 246 fps.

Your benefit: Very high ventilation system performance with 75% static efficiency (83% total efficiency) in unhooused applications.



EXTREMELY ROBUST

- ▶ Welded steel design
- ▶ Max. static efficiency 75% (83% total efficiency)
- ▶ Pressure ranges 6 to 10 in. WG (AMCA Class II)
- ▶ Max. rotational speed 246 fps (3,600 rpm for 16" type)

PROPERTIES

- ▶ Blower wheel for use in unhooded applications
- ▶ Efficiency: up to 75% static efficiency (83% total efficiency) without scroll housing
- ▶ Max. rotational speed: 246 fps
- ▶ Circular diffuser provides optimal performance data
- ▶ Compatible with various PM/DC/EC/AC-motors; 50/60 Hz; with/without VSD

APPLICATIONS

- ▶ HVAC applications
- ▶ Air Handling Units (AHU)
- ▶ Building ventilation systems
- ▶ Plug fans
- ▶ Plenum fans
- ▶ Compressor cooling
- ▶ Extraction units

TECHNICAL DATA

Models	Standard model sizes available in 13 different diameters and one standard width
Diameter	9" to 38 1/2" (225 mm to 1,000 mm)
Material	Steel
Production process	Welded design
Construction	Single width
Inlet cone	ED 11 with blind rivet nut for pressure tapping
Mounting	Taperlock hub or variable pitch circle diameter (PCD)

OUR CHAMPION: **D**prime

The fan wheel for all major challenges: D prime for unhooded applications that require a static pressure increase of 10 to 16 in. WG (AMCA Class III). The welded aluminum execution allows for use with extremely high rotational speeds up to 312 fps.

D prime reaches a maximum static efficiency of 75 % (total efficiency 83 %) and delivers extremely high ventilation system performance. On top of that, its airfoil blade geometry provides for excellent acoustics.



SUPER SILENT

- ▶ Airfoil blade geometry
- ▶ Welded aluminum design
- ▶ Max. static efficiency 75% (83% total efficiency)
- ▶ Pressure ranges 10 to 16 in. WG (AMCA Class III)
- ▶ Max. rotational speed 312 fps

PROPERTIES

- ▶ Blower wheel for use in unhooded applications
- ▶ Efficiency: up to 75% static efficiency (83% total efficiency) without scroll housing
- ▶ Max. rotational speed: 312 fps
- ▶ Circular diffuser provides optimal performance data
- ▶ Compatible with various PM/DC/EC/AC-motors; 50/60 Hz; with/without VSD
- ▶ Particularly lower and broadband noise

APPLICATIONS

- ▶ HVAC applications
- ▶ Air Handling Units (AHU)
- ▶ Building ventilation systems
- ▶ Plug fans
- ▶ Plenum fans
- ▶ Compressor cooling

TECHNICAL DATA

Models	Standard model sizes available in 13 different diameters and one standard width
Diameter	9" to 49 7/32" (225 mm to 1,250 mm)
Material	Aluminum
Production process	Welded design
Construction	Single width
Inlet cone	ED 11 with blind rivet nut for pressure tapping
Mounting	Taperlock hub or variable pitch circle diameter (PCD)

PUNKER – ALWAYS IN MOTION

Air movement system solutions perfectly suited to industry requirements – that's punker. For over 60 years, punker has stood for high quality products, innovative developments and superior service. Worldwide and always in close cooperation with our customers.

At our production sites in Hickory, NC and Eckernförde, Germany we develop solutions for a vast variety of applications. Together with you, high-quality materials and extensive technical knowledge, it is no wonder that with more than 1,000 customers worldwide, punker is the largest European developer and manufacturer of radial fan wheels.

Professional, goal-oriented and personal.



Foundation for best results:

Committed employees willing to improve each and every product with knowledge, experience and passion.

We are member of the following industry associations:

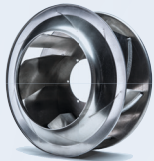


Air Pollution Control

OUR PRODUCTS

We offer fan wheels and air movement solutions for almost every application purpose – custom designed solutions, engineered in Germany.

Backward-curved



Forward-curved



Cross-flow wheels



Cross-flow fan kits



Special impellers



punker at a glance:

Discover the whole variety
of our products or get in touch
with us directly.

www.punker-usa.com

- Development of air movement system solutions since 1954
- 2 production sites: in Hickory/North Carolina (U.S.A.) and Eckernförde/Schleswig-Holstein (Germany)
- A total of 22,000 m² (237,000 ft²) production area with an extensive range of machinery
- Approximately 300 highly motivated and qualified employees
- Export: > 50%

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