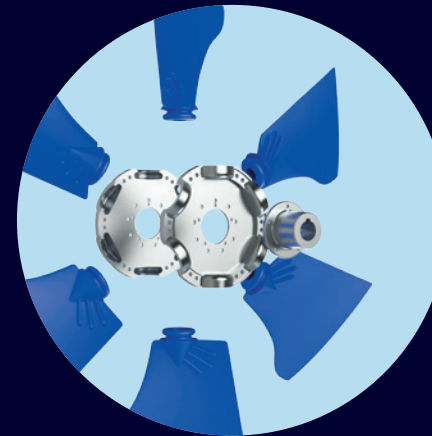




Solutions for

CONSTRUCTION

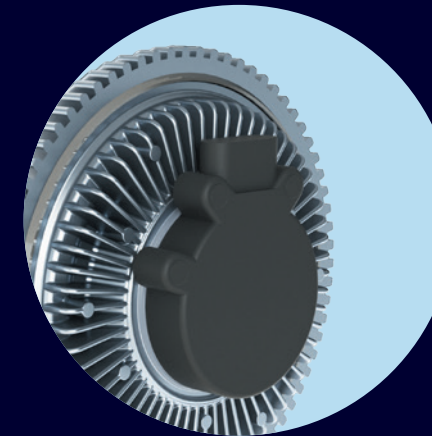
SMART FAN TECHNOLOGY



Technology

WingFan's core competence in aerodynamic engineering provides you with the most advanced technology to comply with noise and emissions legislations.

Cooling modern construction equipment is becoming increasingly difficult, especially with operators asking for quieter machines for use in urban areas, which is why engineers are now paying much more attention to the cooling efficiency of new machines. An optimized cooling fan is one of the few things that can be easily changed to reduce noise emissions and improve cooling efficiency. Every application has its unique challenges that have to be addressed individually. Our axial fan solutions for construction machinery and related applications are custom configured to minimize fuel consumption and provide optimal cooling with minimal fan noise.

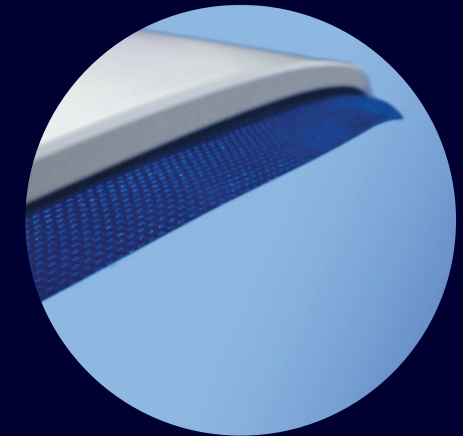


Clutches

Clutches control the fan speed in direct proportion to the engine cooling needs resulting in improved fuel economy, lower noise and increased operator comfort.

Choose from our highly advanced maintenance free electronic viscous clutches that can be precisely controlled by the ECU, or fully modulating bi-metal clutches that sense the temperature of the air passing through the heat exchanger for accurate fan engagement.

Due to the very limited space available for the fan and clutch in modern machines, WingFan has designed two special hubs to fit perfectly onto our clutch options, minimizing the overall axial depth.



BLEX

With WingFan's BLEX® technology, the static pressure is dramatically improved and the noise may be reduced by 2 to 3 dB(A). The noise at the fan blade tips caused by air slippage and turbulence is significantly reduced due to minimized tip clearances.

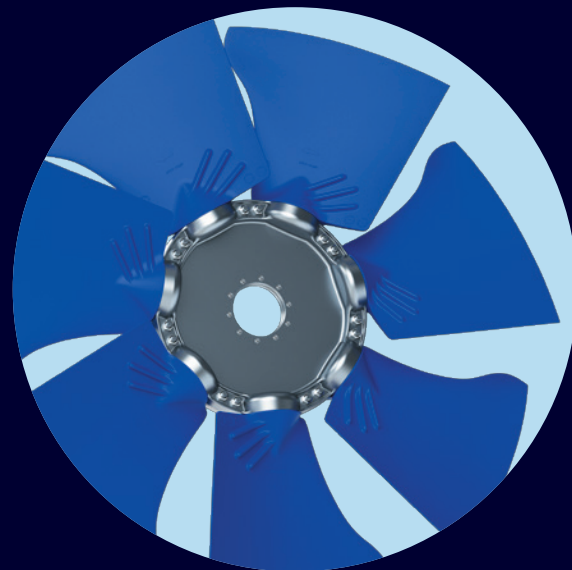
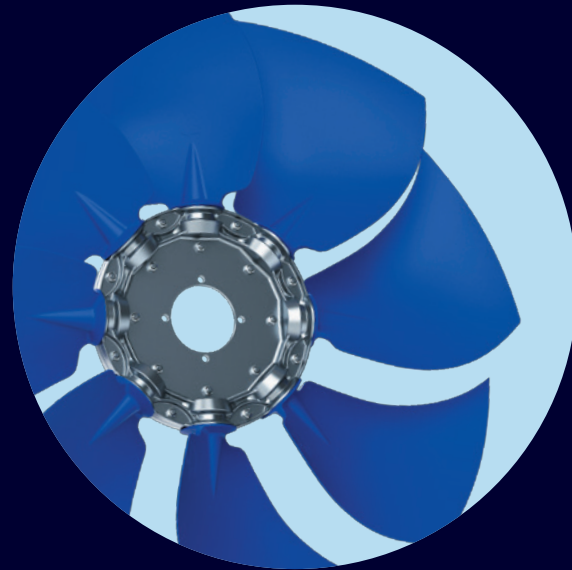
The same air flow can be achieved while reducing pitch angle and fan speed, thus lowering power consumption. The overall system efficiency is increased by up to 20% resulting in significant fuel/energy savings.

The flexible nylon fabric is designed to adapt the fan diameter to the contour of the shroud thereby reducing the clearance close to ZeroTip®.

All regular blade profiles in the WingFan product range made of PA and PAG material are available with state-of-the-art BLEX® technology.

Tried and tested solutions for ever increasing demands

Highly efficient fans powered by hydraulic motors for excavators ensure the lowest possible power consumption while freeing up engine power for the main machine functions. Ever increasing noise emission restrictions on urban building sites require carefully engineered cooling fans in combination with the cooling package shroud designs to minimize noise emissions. Our in-depth experience selecting a fan that will meet the most challenging operating parameters can be validated by testing the fan in combination with the cooling package. Use our state-of-the-art wind tunnel before undertaking costly field testing of the machine.



EXCAVATORS

Quiet and efficient

The advanced aerodynamics of the S4Z sickle blades minimize the noise emissions while providing enough airflow to cool the excavator in any climate.

Compact and powerful

The S45Y performs at its best in combination with cooling packages requiring high static pressure and restricted space.



Space-saving solutions to overcome high airflow restrictions

Small wheel loaders usually require a very compact pulley driven cooling fan that is capable of overcoming high airflow resistance in cramped engine bays. New legislation to reduce the noise means that these fans are increasingly fitted with viscous clutches to control the fan speed in proportion to the cooling requirement. WingFan can deliver the clutch together with a special space-saving offset hub to ensure that the fan and clutch will fit into the most compact cooling packages.

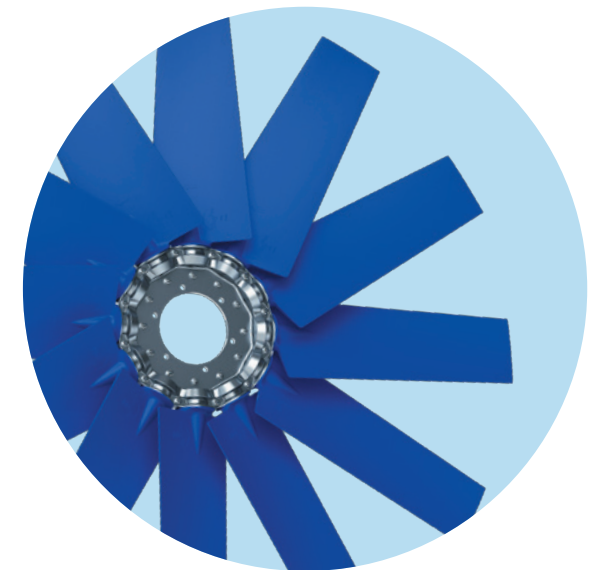
Low noise hydraulic driven fans for large wheel loaders are imperative for operator comfort and to comply with the ever increasing noise emission restrictions being applied to urban building sites. WingFan has in-depth experience in configuring a fan that will meet the most challenging operating parameters.

WHEEL LOADERS



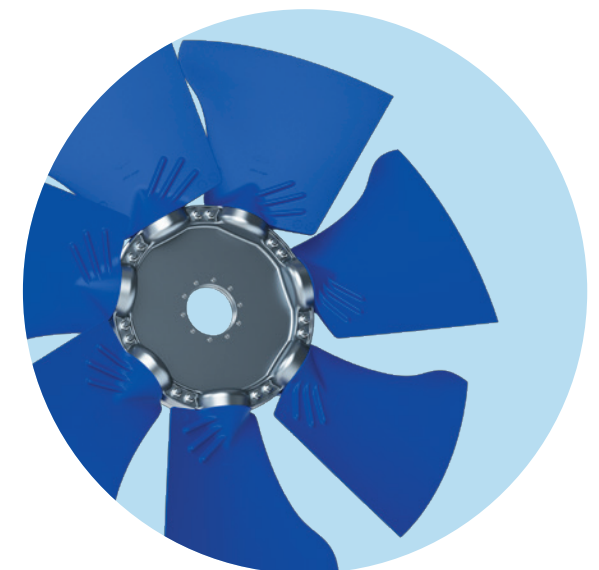
Minimum power drain, maximum airflow

The highly efficient P6Z blades minimize the power draw from the engine while delivering maximum cooling airflow in large wheel loaders.



Low noise and robust

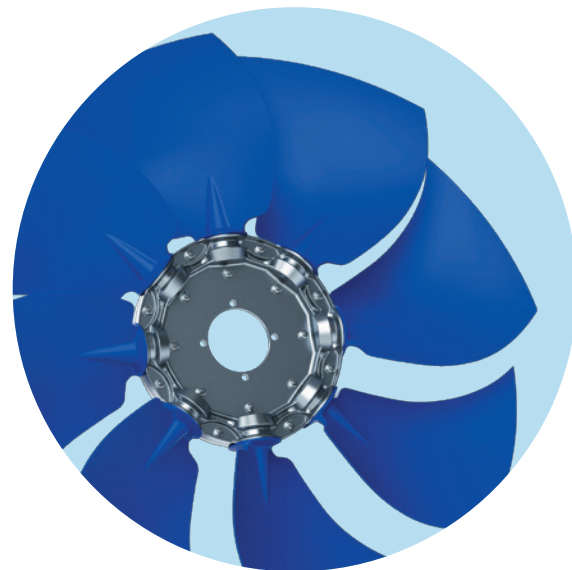
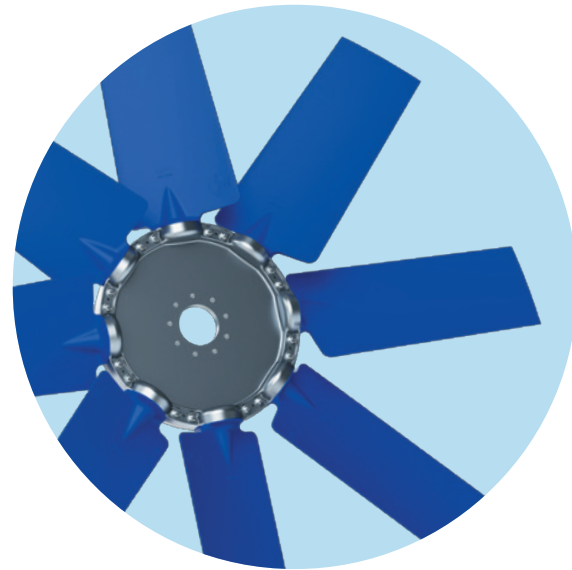
High performance with low noise emissions are two requirements that S45Y achieves in modern wheel loader applications.



Toughest materials for the roughest environment

Most portable compressors use a pusher fan configuration mounted directly onto the engine crankshaft to minimize the height of the engine enclosure. Great care must be taken to select a fan capable of withstanding the severe un-dampened torsional vibration from the crankshaft being transmitted directly into the fan blades. WingFan offers a number of specially reinforced low noise blade profiles specifically developed for cooling portable compressors.

PORTABLE COMPRESSORS

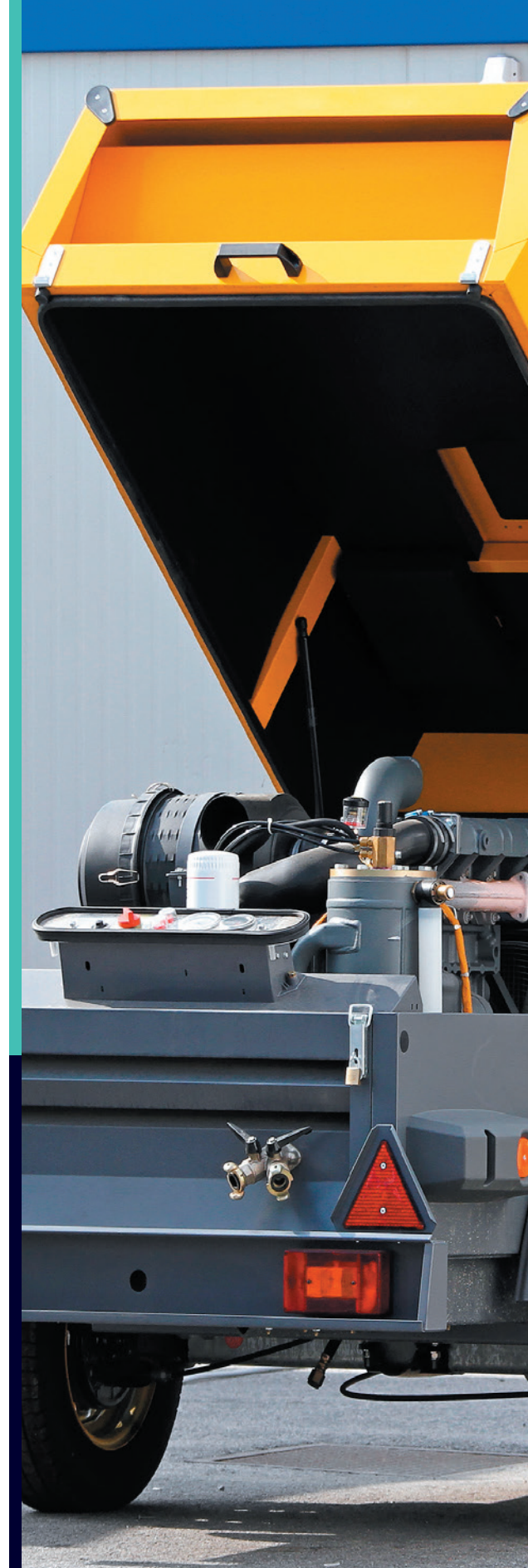


Lower power draw

Our high efficiency P8Y blade minimizes the power draw from the engine leaving more power for the compressor.

Improved efficiency

The S4Z sickle blade was chosen to allow a reduction in rpm and noise emissions while improving the air to boil temperature significantly.



Extremely high pressure in very limited space

WingFan has developed a high performance one-piece fan specifically for the extremely high pressure and airflow demands in skid-steer machines. The very limited space available for the fan requires a very high rpm to cool the machine effectively with a relatively small diameter fan. By applying BLEX blade extensions to the tips of the blades it is possible to reduce the rpm by up to 800 rpm and still achieve the same cooling performance but with up to 3 dB(A) less noise.

SKID-STEER



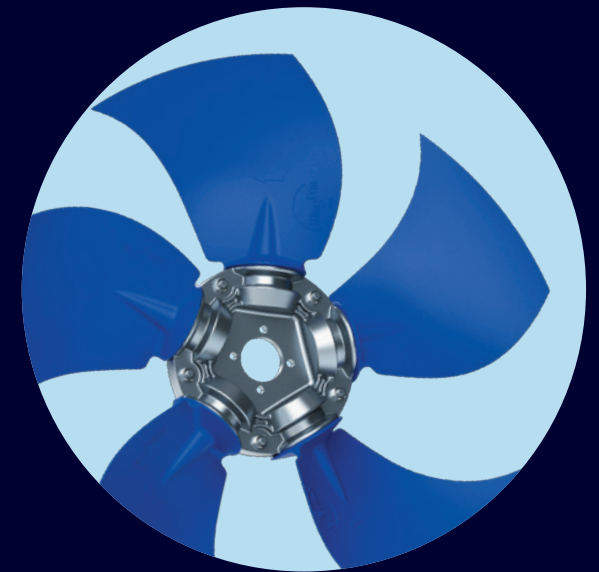
Durable low noise fan

Its high durability and superb performance is why the VS2R fan is trusted by some of the world's largest skid-steer manufacturers to keep the machines cool in any climate.



High performance cooling

Wide frame skid-steer machines are quietly and efficiently cooled with our S2Z fan with BLEX blade extension technology.

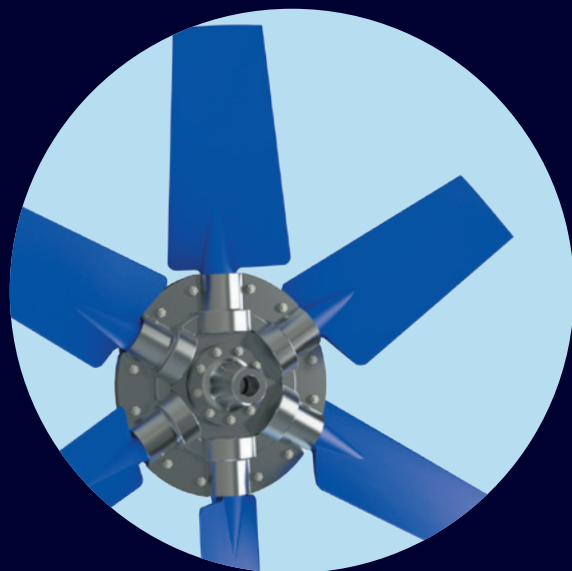


Innovative solutions for modern machines

WingFan has powerful and robust fan solutions for modern milling machines with dual engines. When only one engine is in use the fan rpm can be reduced to save fuel and minimize the power drain from the engine. The wide variance in fan load is efficiently mastered by our innovative products.

Our extremely robust fans are built to withstand the toughest operating conditions on machines that demand long maintenance intervals.

COLD MILLING AND PAVING MACHINES



Robust and durable

The strong P7T blade is made of high quality fiber-glass reinforced nylon to minimize blade deflection and ensure high durability.

Maximum performance at lower rpm

The class leading static pressure and airflow of the S38Z at lower rpm minimizes the power draw from the engine while delivering the maximum cooling airflow.



Withstands extreme vibration

The high vibration levels in compactor applications call for a fan engineered to withstand the extreme forces caused by the vibratory roller. The fan should also have enough pressure reserve to overcome extra resistance caused by fouled radiators in dusty environments.

Our robust and quiet fans have proven themselves in many compactor applications even in the hottest climates.

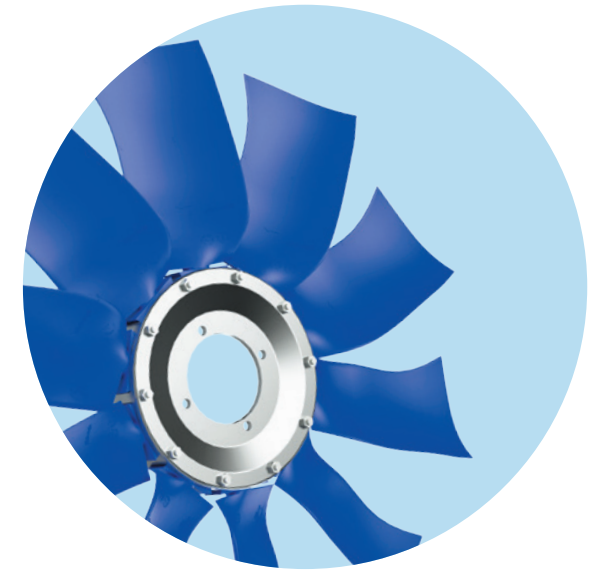
COMPACTORS AND ROLLERS



NEW

Maximum pressure in minimum size

Our S13H has been designed to meet the demanding cooling requirements of Tier 4f engines, as well as the increased cooling package resistances.



NEW

Low noise and high performance

The combination of outstanding performance and low noise characteristics of the S38 has solved noise and cooling issues in many large Tier 4f compactors.



State-of-the-art technologies for innovative solutions

Since mobile cranes are often deployed in urban areas where stringent noise emission regulations apply, a strong focus is placed on the noise emissions of the fan. WingFan's state-of-the-art BLEX blade extension technology has been successfully implemented in mobile crane applications to reduce the fan noise emissions by 2 dB(A).

Our high performance S38 blade profile reduces noise emissions by achieving the same airflow as competitor's fans but with an rpm reduction of up to 300 rpm.

CRANES



NEW

Reduced noise and better cooling

The S38Z in combination with BLEX reduces noise emissions by up to 2 dB(A) in a mobile crane while improving the cooling performance.

Overcome high resistance

The S14H in an 8 bladed configuration overcomes even the highest cooling package resistances with minimum noise.





SELECT Fan Selection Software

The leading free fan selection software in the industry. SELECT is a powerful tool to easily find the right fan for your application.

- Immediate 2D visualization of the fan including all performance data, important dimensions, as well as axial deflection
- Create official ErP certificates for all selections within SELECT with just a few clicks
- Automatic updates ensure that the latest fan and performance data are always available
- Project management function: all selections / comparisons can be saved, retrieved and simply sent to colleagues or WingFan via email

SELECT
Fan selection software 

Download at wingfan.com

Quality can not simply be claimed - it has to be proven time and again.



We think global

WingFan is a globally active technology leader of modular axial fan solutions for efficient engine cooling and HVAC/Refrigeration applications.



We act local

Local production – worldwide. With production facilities on every continent and our extensive distribution network, we ensure a short supply chain and local support.



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Smart technology for improved performance

WingFan's innovative fan technology helps to increase the energy efficiency and reduce emissions of your system.