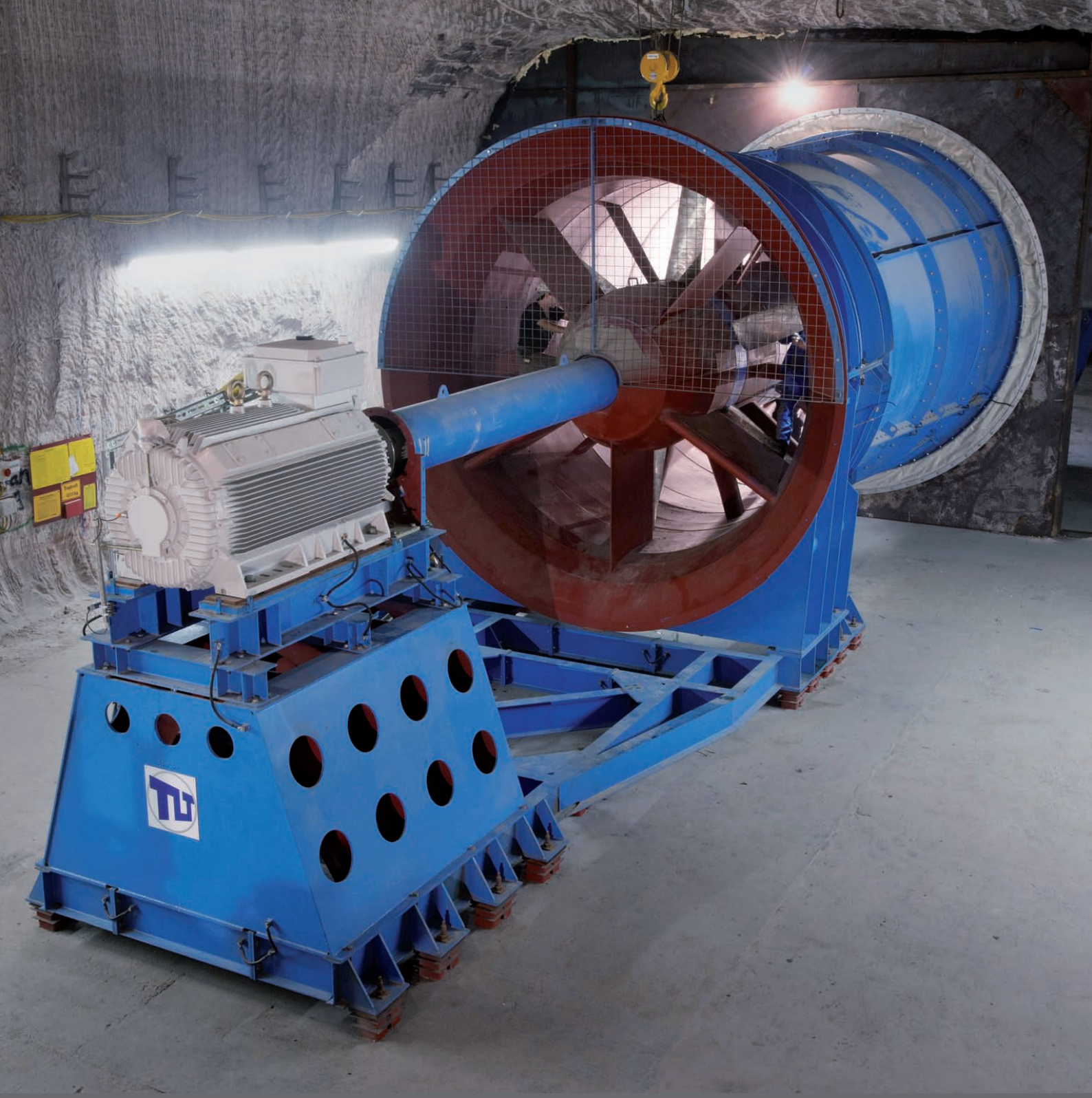

Mine Ventilation Solutions

Quiet. Efficient. Durable.

a company of POWERCHINA

TLT-Turbo

TLT-Turbo - A corporate success story.

Innovation for more than 140 years.

As a pioneer and innovator in the fan and blower market with a strong tradition: TLT-Turbo has been active in this market since 1873. Back then, our first products were fans for mine ventilation in Germany. In a very short time our high quality solutions spread around the world – to wherever the very best fans and blowers were required. TLT is now a company of Power China and transformed to a global Fan Group.

For decades the TLT-Turbo Fan Group and it`s members around the word have been supplying fans that are distinguished by innovation and compliance of most complex requirements in mine ventilation. Fan stations with total volume flows of several thousand cubic meter per second at pressure rises of up to 12,000 Pa are in use.

Decide for a perfect solution.

We design and manufacture axial fans ready for ventilation on demand with volume flow control, speed control and blade pitch adjustment - manual during standstill or fully automated inflight.

To complete the portfolio TLT-Turbo supplies mining auxiliary fans.

„Our portfolio covers centrifugal fans as well".

Where no VOD system is installed, we provide a flow controller stabilizing and controlling the fan output, supply highest efficient, safe and reliable fan systems.

Optimizing your fan system.

Europe's largest mine fan station for a copper mine with 16 MW fan power where we have realized the noise emission to 35 dBA at the facility border.

Product range

Mine axial fans

▶ Blade tip diameter	1.6-6.5 m
▶ Volume flow	90-950 m³/s
▶ Pressure rise	500-12,000 Pa
▶ Drive power	100-10,000 kW
▶ Efficiency	up to 90 %

Mine centrifugal fans

▶ Impeller diameter	up to 5.5 m
▶ Volume flow	100-800 m³/s
▶ Pressure rise	1000-40,000 Pa
▶ Drive power	500-12,500 kW
▶ Efficiency	up to 90 % (Aerofoil blades)

Auxiliary mine fans

▶ Blade tip diameter	0.4-1,6 m
▶ Volume flow	3-50 m³/s
▶ Pressure rise	500-3,000 Pa
▶ Drive power	7,5-200 kW
▶ Efficiency	up to 85 %

The specifications are taken into account for the design to provide a durable and quiet solution.

VOD ready modular structured injection fan with silencer, close to the office complex of the mine.

Focus on customer needs.

TLT-Turbo is your partner for ventilation solutions. In case of enlarging the ventilation capacity of a mine or upgrading an existing fan, our competence center for mine ventilation can support you.

Lab for aerodynamic, acoustics and blade impact test.

Special acoustic fan design and silencing solutions will make your fan system one of the most silent ones in the world – even your existing fans.

Your Partner for mine ventilation systems.

Do you need a new ventilation system to enlarging the capacity of your mine or upgrading an existing fan?

From supplying a fan up to EPC and Turnkey services, or upgrades of existing fans of any brand – our local offices and competence center for mine ventilation will support you with the perfect solution tailored to your requirement.

Mine ventilation is a major source of potential energy and money savings for mine operators. We are committed to achieve the best possible system efficiencies by aerodynamic optimized designs, smart control systems and low noise solutions.

Use the possibility to save energy and money with new optimized ventilation. We are committed to achieving the best possible system efficiencies by aerodynamic designs, smart control systems including volume flow control technics by speed and or variable pitch and noise reduction. Therefor TLT-Turbo uses the most advanced CAE tools.

Upgrade of an existing main fan from a competitor with a silencer.

Supporting to your needs – TLT-Turbo.

We provide you with various services and solutions at any time of your ventilation system life cycle. Our experience also includes maintenance, upgrading and retrofitting your ventilation plant. The focus is on maximizing the economic performance and to increase the duty lifetime.

Revisions on site or in our workshop of TLT-Turbo fans and any other brand. Spare part storage solutions, parts reconditioning, coating and many more...

Contact us or one of our local offices to get your technical and economical perfect solution that fit your needs for mine ventilation.

TLT-Turbo workshop for manufacturing, revision of fans and rotor balancing.

In house blade manufacturing center at TLT-Turbo workshop in Germany.

Balancing machine for axial a radial hubs at multiple speeds.

Fans often operate under harsh conditions, which leaves marks.
To prevent a fatal collapse and to increase the durability, we service and recondition your fan.

Some of our references and projects

1966 Australia
- Worldwide largest variable pitch axial mine fan and largest ever built mine fan with an outer diameter of 6,1 m

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2013 Russia
- Two main ventilation systems for potash mines, capable of more than 75% of air flow reversion by hydraulic blade adjustment within 10 min.

2014 Europe
- Europe's largest main ventilation system for a copper mine with 4 fans axial fans, each with a tip diameter of 3.8 m, 16 MW installed power and customized silencer.

2014 Europe
- 3.2 m extracting ventilation system for a copper mine with sophisticated silencer layout and control system.

2015 Russia
- Main ventilation for an Iron Ore mine, with two 4.7 m fans capable of more than 75 % of air flow reversion by blade adjustment within 10 min.

2016 Europe
- Two underground main fans for a salt mine with a tip diameter of 3.6 m.

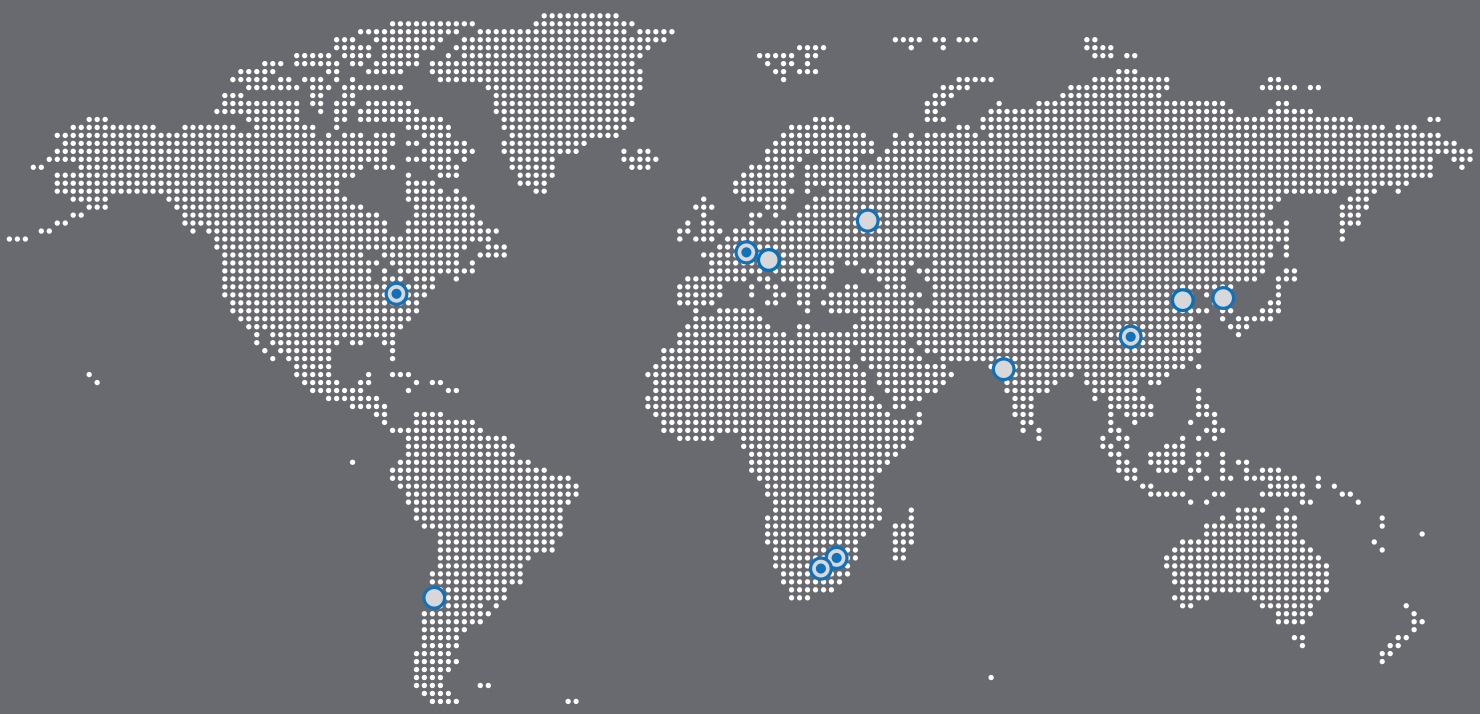
2016 Europe
- Mine injection ventilation system for a copper mine with customized silencer and control system.

2016 Europe
- Silencer upgrade at two existing competitor main fans for one customer. Aerodynamically and acoustically optimized outlet.

2017 Europe
- Mine ventilation system with 2 two 3.4 m fans for a final nuclear repository (formerly Iron Ore Mine).

A Passion for Solutions.

Germany . China . South Africa . USA
Austria . Chile . Hungary . India . Russia . South Korea



Business Location w/ Manufacturing and Service Workshop

TLT-Turbo GmbH . Germany
TLT-Turbo (Sichuan) Co., Ltd. . China
TLT-Turbo Africa . South Africa
TLT-Turbo Inc. . USA

Business Location

TLT-Turbo Rep. Office . Austria
TLT-Turbo South America SpA . Chile
TLT-Turbo Rep. Office . China
TLT-Turbo Rep. Office . Hungary
TLT-Turbo India (Pvt.) Ltd. . India
TLT-Turbo Rep. Office . Russia
TLT-Turbo Korea . South Korea

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66482 Zweibrücken/Germany
Phone: +49 6332 808-0

TLT-Turbo

a company of POWERCHINA

Website

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or contact us via email at: Mining@tlt-turbo.com

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