

SWAM equipment for industrial projects

Dear colleagues,

VERTICAL LLC is the official exclusive representative of SWAM PNEUMATICS PRIVATE LIMITED in Russia.

We offer blowers, gas compressors, vacuum pumps and complete systems for new plants, expansion and upgrades of existing facilities.

Together with SWAM specialists, we select equipment for your process conditions, agree technical requirements and configuration, and prepare technical and commercial proposals. Delivery terms and schedules are determined for each project.

After delivery, we provide technical support and coordinate warranty and post-warranty service with SWAM.

We welcome cooperation with industrial businesses, design and engineering companies, general contractors and system integrators. For an initial assessment, please send your technical specification, enquiry sheet or description of the task.

We would be pleased to discuss your project.

info@vertical-rus.ru



SWAM PNEUMATICS PRIVATE LIMITED



« Innovation » « Technology » « Excellence »

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ПОДТВЕРЖДЕНИЕ ЭКСКЛЮЗИВНЫХ ПОЛНОМОЧИЙ НА ТЕРРИТОРИИ РОССИЙСКОЙ ФЕДЕРАЦИИ

SWAM, Индия, назначает ООО «ВЕРТИКАЛЬ», ИНН: 7802951765, Российская Федерация, своим единственным официальным и эксклюзивным представителем на территории Российской Федерации.

1. Статус ООО «ВЕРТИКАЛЬ»

ООО «Вертикаль» уполномочено представлять интересы SWAM в Российской Федерации

2. Полномочия ООО «ВЕРТИКАЛЬ»

- представлять SWAM и ее продукцию перед российскими компаниями, заказчиками и деловыми партнерами
- осуществлять маркетинг и рекламное продвижение продукции SWAM на российском рынке
- осуществлять продажу продукции SWAM на территории Российской Федерации

3. Эксклюзивность

SWAM подтверждает, что ООО «ВЕРТИКАЛЬ» является единственным официальным и эксклюзивным представителем SWAM на территории Российской Федерации.

CONFIRMATION OF EXCLUSIVE AUTHORITY IN THE TERRITORY OF THE RUSSIAN FEDERATION

SWAM, India, appoints VERTICAL LLC, TIN: 7802951765, Russian Federation, as its sole official and exclusive representative in the territory of the Russian Federation.

1. Status of VERTICAL LLC

VERTICAL LLC is authorized to represent the interests of SWAM in the Russian Federation.

2. Authority of VERTICAL LLC

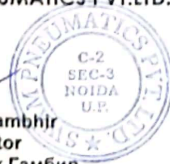
- represent SWAM and its products before Russian companies, customers and business partners
- carry out marketing and advertising promotion of SWAM products in the Russian market
- sell SWAM products in the territory of the Russian Federation

3. Exclusivity

SWAM confirms that VERTICAL LLC is the sole official and exclusive representative of SWAM in the territory of the Russian Federation.

For SWAM PNEUMATICS PVT.LTD.


Mr. Abhishek Gambhir
Managing Director
Мистер Абишек Гамбир
Генеральный директор



Warranty and service in Russia

SWAM manufacturer's warranty.
Support in Russia by VERTICAL LLC.

Warranty service

We receive and manage enquiries in Russia, coordinate diagnostics and arrange warranty service in cooperation with SWAM.

Technical support

We advise on equipment operation and involve the manufacturer's specialists in resolving technical issues.

Post-warranty service

We select spare parts and arrange service work within the agreed scope.

The warranty term and conditions and scope of service work are defined by the supply contract and the manufacturer's documentation.

An aerial night photograph of an industrial port. Several large cargo ships are docked at a long pier, their decks illuminated by warm yellow lights. To the right of the ships is a complex industrial facility, likely a refinery, with numerous pipes, storage tanks, and structures also lit up. The dark blue water of the port contrasts with the bright lights of the industrial scene.

BUILDING A SUSTAINABLE FUTURE

ISO 9001:2015, 14001:2015, 45001:2018

ATEX and CE certified company



Innovation · Technology · Excellence

SWAM is one of Asia's largest manufacturers of rotary positive displacement blowers, compressors, vacuum pumps and systems. The company offers world-class products complying with international API, BS and ISO standards and bearing CE certification.

We are also the only Indian Roots blower manufacturer with ATEX certification for rotary tri-lobe blowers and compressors for critical gas applications.

U Unmatched TECHNOLOGY

S Outstanding PERFORMANCE

P Trouble-free OPERATION

About us



Advanced
technology and
sustainable
solutions for
a better
future

SWAM is a leading rotary equipment engineering company and one of the global leaders. We specialise in engineering, design, manufacture and supply of rotary air and gas compressors, process gas compressors, biogas blowers, truck-mounted vacuum blowers, centrifugal fans, claw vacuum pumps and compressors, liquid ring vacuum pumps and compressors, dry screw vacuum pumps, mechanical vacuum boosters, rotary vane compressors, complete vacuum systems and associated equipment.

SWAM is known for technology, innovation and a commitment to excellence. The company has developed advanced product design and development capabilities to meet stringent quality and performance requirements. We focus on custom-designed packaged units tailored to customer and project needs, manufacturing precision, modern technology, high performance and quality after-sales service.



More than four decades of experience have built the company's expertise in projects with critical operating requirements. Today, SWAM is present in more than 15 countries.

Our quality management system is certified to ISO 9001.

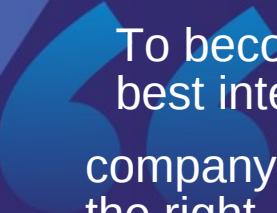
We follow the requirements of the ISO 14001 environmental management system.

Our occupational health and safety system follows ISO 45001.

Our head office and manufacturing facilities are in Noida, near New Delhi, India's capital. The company has five plants with modern CNC machinery, an in-house 1,000 kW testing facility, and painting and packing areas.

Our motivated engineers and skilled workers are committed to meeting process requirements and customer quality standards. The company has delivered many prestigious projects under strict compliance controls.

Our mission



To become the
best international
company by offering
the right
product for each
application

SWAM continues to learn, adapt and grow with the rapidly changing business world. We are always open to new challenges.

Our journey from modest beginnings to an international supplier of high-quality products has been driven by continuous improvement at every stage, determination and the ambition to become a reliable brand trusted worldwide.

We achieve results through:

- Environmental care
- Manufacturing improvements
- Engineering expertise
- A safe, motivating workplace
- Understanding customer needs
- Product development

Our vision

SWAM aims to become a leading international company and the preferred choice through outstanding products, services, an unwavering commitment to excellence and a high standard of interaction with customers.

Innovation - Quality - Values

Our vision is to meet customer needs by offering the highest-quality products at competitive prices. At the same time, we aim to reduce our environmental impact and contribute to a sustainable future.

The foundations of SWAM's sustainable growth:

- Flexibility and innovation
- Projects complying with international standards
- Rigorous quality control and testing
- In-house verification and control throughout: zero tolerance for nonconformities
- Customer collaboration, knowledge sharing and training

Engineering and design

- SWAM offers a complete turnkey service: concept assessment, engineering and design of compressor and vacuum units, manufacture after approval, factory performance testing, installation and commissioning, followed by service support.
- The company employs qualified mechanical, electrical, instrumentation and process engineers, designers, manufacturing specialists and control system specialists.
- The team is proficient in international standards including ISO, BS and API, supporting the development of highly energy-efficient packaged units.
- As an engineering and manufacturing company, SWAM focuses on design and development to ensure high quality and cost-competitive products.
- SWAM has proven experience in diverse applications worldwide, including critical processes and gas environments.

Research and development

- SWAM's engineering department includes talented, proactive specialists using advanced design and analysis tools, including 3D modelling and AutoCAD.
- Our engineers think creatively and consistently seek the best solution for every task, keeping customer requirements at the centre of their work.
- The research and design team includes professional mechanical, electrical, automation and instrumentation engineers.
- Our work extends beyond new products: specialists continually improve the existing range, designs and manufacturing methods to increase customer value.

Advanced manufacturing systems

SWAM has one of the industry's most advanced manufacturing systems. Five modern production sites are equipped with numerous CNC machines, including five-axis and seven-axis machines and horizontal machining centres, delivering exceptional manufacturing precision and efficiency.

Blowers, vacuum pumps and other products are designed and manufactured with optimised working element profiles. This delivers high efficiency, increased displacement and minimal internal leakage. This attention to design and manufacture improves equipment energy efficiency for customers.

Using the latest technology and modern manufacturing equipment, SWAM produces high-quality, consistent and energy-efficient components and finished products. Investment in world-class manufacturing differentiates the company and creates exceptional customer value.

From design and engineering to manufacture and quality control, every stage is optimised for maximum performance. Products exceed industry benchmarks in key measures of efficiency, capacity and energy consumption, providing solutions for customer success.



Testing and quality systems

Design and manufacturing quality control

High quality standards begin with careful design and manufacturing planning. Detailed drawings define precise dimensions, tolerances and materials. Raw materials are quality-checked and selected against stringent requirements. Consistent production processes, including advanced machining and assembly, ensure uniformity and reliability from batch to batch.

Mechanical and electrical testing

Every compressor and vacuum pump undergoes rigorous testing to verify mechanical integrity and electrical safety. Pressure and vacuum tests simulate actual operating conditions. Vibration analysis identifies imbalance and misalignment. Comprehensive leak testing detects air and liquid leaks that could reduce performance or efficiency.

Performance testing

SWAM products are tested on modern test rigs. Different operating conditions are simulated to measure efficiency, capacity, power consumption and discharge pressure to BS 1571, Part II. Data is carefully analysed to ensure compressor performance meets or exceeds rated parameters and customer expectations.



Quality assurance and control

ISO 9001:2015 quality assurance programmes cover the entire manufacturing process. Detailed work instructions, in-process inspections and statistical process control ensure consistency and compliance. Visual, dimensional and functional inspections identify and resolve deviations and nonconformities before delivery to the customer.

Documentation and records

Documentation is maintained throughout manufacturing. Test results, inspection reports, calibration records and corrective actions form a complete quality history. This enables traceability, root cause analysis and continuous improvement. Certificates of conformity and material test reports are available on request.

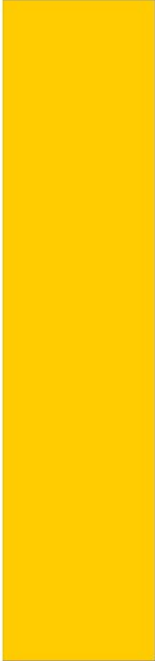
Customer feedback and audits

Feedback is integral to the quality system. Surveys, interviews and site visits provide information on product performance and customer satisfaction. Regular internal and external audits assess compliance with industry standards, regulations and customer specifications. Their findings inform corrective and preventive actions.

Benefits of reliable testing and quality systems

1. Improved product reliability and service life
2. Lower production costs
3. Greater customer satisfaction
4. Compliance with regulations and standards
5. Continuous improvement





An overview of our
complete product
range



SWAM offers world-class engineering solutions in compressor and vacuum technology for industries and applications worldwide, in accordance with international standards.

Rotary positive displacement compressor

Technical specifications

Capacity: up to 85,000 m³/h.

Pressure differential, single stage: up to 1.3 bar(g).

Pressure differential, two stages: up to 2.4 bar(g).

Materials: cast iron, carbon and stainless steel, duplex, super duplex, Hastelloy; various coatings.

Rotors: bi-lobe, tri-lobe and helical lobe.

Models: RH-20 - RH-4000; air and water cooling.



Super Helical hybrid blower

Highly energy-efficient packaged unit with electric drive, PLC and HMI, acoustic enclosure, and monitoring and protection instruments.

Technical specifications

Capacity: up to 40,000 m³/h.

Pressure differential, single stage: up to 1.3 bar(g).

Materials: cast iron, carbon and stainless steel, duplex, super duplex, Hastelloy; coatings.

Rotors: helical / twisted lobe.

Models: RH-20 - RH-3000. Closed-loop forced oil lubrication, water injection, and API and other mechanical seal designs are available.



Energy efficiency
AI features



Plug &
Play

High-pressure rotary gas compressor

Rotary gas blowers and compressors for explosive atmospheres are designed with safety as a priority. These specialised blowers are ATEX certified, having passed stringent tests and met safety requirements for areas where flammable gases or vapours may be present.

Technical specifications

Capacity: up to 100,000 m³/h.

Pressure differential, single stage: up to 1.3 bar(g).

Pressure differential, two stages: up to 2.4 bar(g).

Rotors: bi-lobe, tri-lobe and helical.

Materials: cast iron, carbon, stainless, duplex and super duplex steel, Hastelloy; coatings.

Models: up to RH-5000. Inlet pressure: up to 20 bar(g).



Key features

ATEX certification (Atmosphères Explosibles): the European directive sets safety requirements for equipment used in potentially explosive atmospheres.

Low noise: reduced operating noise improves staff safety and comfort.

Safety instruments: transmitters, switches, gauges, audible alarms and gas detectors. Enclosure protection ratings listed are IP55, IP56, IP65 and IP66.

Explosion-proof construction prevents an internal explosion from spreading outside and reduces the risk of ignition.

Sealing and leak prevention: specialised solutions limit flammable gas leakage and prevent contaminants entering the blower.

Materials: spark prevention and appropriate material selection are priorities.

Key applications

Offshore oil and
gas facilities

Biogas

Other industrial
processes

Petrochemicals

Nuclear industry

Metallurgy

Gases handled

Hydrogen, nitrogen, oxygen, carbon dioxide, methane, gas mixtures, coke oven, blast furnace, flare and flue gas, sodium cyanide*, sulphur dioxide, hydrogen sulphide, carbon monoxide, helium, inert and process gases and other media.

* Name retained from the original; the medium must be clarified with SWAM.

Biogas blowers and compressors

Designed for low-pressure biogas transfer, modern Roots blowers play an important role in renewable energy generation and sustainable waste management.

Biogas, also known as digester or landfill gas, consists mainly of methane with small amounts of hydrogen sulphide and other gases. This potentially explosive and corrosive mixture requires specialised equipment.

Rotary biogas blowers efficiently supply gas for controlled combustion or recirculation, including as fuel for internal combustion engine units, improving energy efficiency and reducing environmental impact.

Technical specifications

Capacity: up to 20,000 m³/h.

Pressure differential, single stage: up to 1.2 bar(g).

Materials: cast iron, carbon and stainless steel, duplex, super duplex, Hastelloy; coatings.

Rotors: bi-lobe, tri-lobe or helical; special seals.

Models: RH-20 - RH-3000.



Truck-mounted vacuum blowers

Truck-mounted vacuum blowers are used in industry and municipal services, primarily to collect and transport liquids, sludge, solids and hazardous substances. They offer a mobile, efficient solution for sludge removal, waste handling, hydro excavation and sewer cleaning.

Technical specifications

Capacity: up to 38,000 m³/h.

Vacuum: up to 900 mbar (90% vacuum).

SWAM series: MHV, KHV and SHV.



SWAM SR series rotary air blowers

The new-generation SWAM SR series blowers embody advanced technology: a range of design features delivers high reliability and energy efficiency with minimal maintenance.

Key advantages and innovations

Robust construction and optimised rotor shafts ensure low deflection, reduced noise and minimal vibration.

- Computer-designed rotor profiles provide precisely controlled, uniform clearances and higher volumetric efficiency than conventional designs.
- An integral rotor and shaft design and oil lubrication at both ends improve durability, extend service life and simplify maintenance.
- Higher-capacity bearings and an exceptionally rigid housing maintain alignment and ensure long service in demanding conditions.

Various sizes and capacities allow equipment to be selected for the required flow and pressure across industries and operating conditions.

Where exceptional reliability, efficiency and low total cost of ownership are essential, SWAM's new-generation SR series blowers are the choice for the most demanding air supply applications.

Technical specifications

Capacity: up to 2,000 m³/h.

Pressure, single stage: up to 0.7 bar(g).



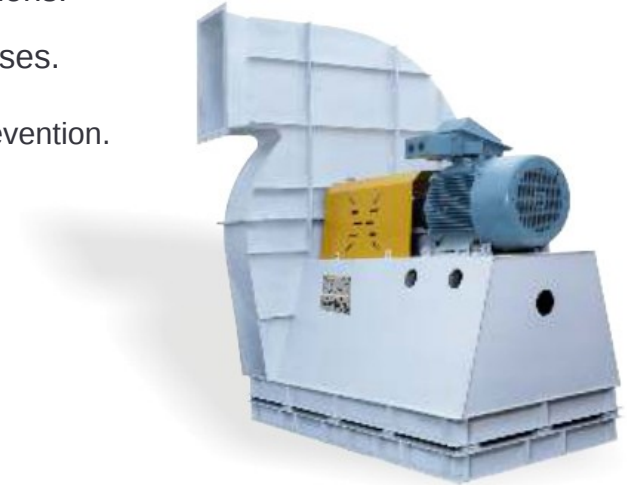
Centrifugal fans and blowers

- Static pressure up to 1,800 mm H₂O in one stage: modern ID/FD induced-draft and forced-draft fans are designed for high performance and reliability.
- Multistage configurations provide even higher static pressures for demanding applications.
- Operation on discharge or suction is possible to suit system requirements.
- Special materials are selected for durability and resistance when handling different gases.
- A choice of mechanical or semi-mechanical seals is available for reliable sealing and leak prevention.

Technical specifications

Capacity: up to 120,000 m³/h.

Pressure, single stage: up to 1,800 mm H₂O.



Rotary vane compressors

SWAM compressors serve various sectors:

- Industry: pneumatic and power tools, welding and other processes.
- Automotive: tyre inflation, painting and sandblasting.
- Agriculture: powering agricultural equipment.
- Medical: supplying medical air.

Technical specifications

Capacity: up to 3,500 m³/h. Pressure: up to 2.5 bar(g).



Dry screw vacuum pumps

- SWAM dry screw vacuum pumps embody advanced vacuum technology. Our innovative proprietary screw profile technology supports a wide range of demanding chemical and industrial processes.
- Operation relies on two precision-manufactured screw rotors. They trap gas from the inlet in the working chamber. As the gas moves through the working volume, it is progressively compressed and then discharged.
- Advanced profiles, robust construction and precision manufacturing deliver high performance, reliability and flexibility for demanding vacuum applications across industries.

Technical specifications

Capacity: up to 2,500 m³/h. Ultimate pressure: down to 0.01 Torr.

A wide range of materials and coatings; API and other seal designs.



Liquid ring vacuum pumps (API and non-API)

- SWAM is a pioneer and leader in liquid ring vacuum technology. Its range of high-performance API and non-API pumps meets diverse industry requirements.
- The range includes single-stage and two-stage pumps with flat and conical port elements for high efficiency and reliability.
- Pumps are available in various materials, including stainless steel, duplex steel and titanium, providing corrosion resistance and durability in demanding processes.
- Various seals are available, including specialised mechanical seals for excellent leak-tightness.
- Innovation, quality and customer satisfaction guide SWAM's technology development.

Technical specifications

Capacity: up to 30,000 m³/h. Vacuum: up to 90%.

Applications: chemicals, food, pharmaceuticals, environmental processes, power, pulp and paper, shipbuilding, mining, oil and gas, and others.



Mechanical vacuum boosters

A mechanical vacuum booster improves a primary vacuum pump's performance, providing lower ultimate pressure and higher pumping speed. Boosters serve many industries and processes:

- Oil refining: improving distillation and petroleum product purification efficiency.
- Semiconductor manufacture: maintaining the required vacuum for sensitive electronic components and uniform, high-quality coatings.
- Vacuum impregnation of porous materials and sealing of castings.
- Scientific research: deep vacuum for experiments and analysis.
- Vacuum brake boosters in automotive systems.*
- Freeze-drying of heat-sensitive materials while preserving their structure and properties.

Technical specifications

Capacity: 500-80,000 m³/h. Pressure: down to 10⁻³ Torr in a multistage system.



Claw vacuum pumps

An efficient vacuum solution with low maintenance needs.

- Positive displacement operation with two claw rotors.
- Fully dry operation without lubrication or working fluid.
- Low maintenance compared with other pump types.
- High energy efficiency reduces power consumption.
- Self-cleaning eliminates internal washing or purging.
- Robust construction allows wet and contaminated gases to be compressed.
- Suitable for demanding applications, including the third stage of solar module lamination.

Technical specifications

Capacity: up to 600 m³/h.

Applications: thermoforming, pneumatic conveying, vacuum handling, wastewater, filling and packaging, medical systems, and others.

Efficiency · Easy maintenance



* Item retained from the original; the applicability of an industrial booster requires clarification with the manufacturer.

Mechanical vapour recompression

- SWAM MVR is a highly efficient, economical evaporative concentration technology that can reduce energy consumption in industrial evaporation processes by 90% or more.
- MVR captures vapour generated during evaporation, compresses it mechanically to raise its pressure and temperature, and reuses it as the main heat source in the same process.
- The MVR compressor increases vapour pressure and temperature, allowing the vapour to act as an effective heating medium for evaporation.
- The cycle of evaporation, recompression and condensation continues until the required concentration is reached...*
- MVR is used in food and chemical processing, wastewater treatment and desalination. It enables substantial energy savings and cost reductions in evaporative concentration.



Technical specifications

Capacity: up to 85,000 m³/h. Pressure: up to 1.1 bar(g). Vacuum: up to 60%.

Condenser gas extraction vacuum units

The SWAM Condenser Exhauster system provides reliable, efficient hogging and holding operation at power facilities. The packaged unit uses a liquid ring pump to create vacuum and remove non-condensable gases from a steam condenser.

Technical specifications

Capacity: 10, 20, 30 or 40 SCFM.



* The source sentence is incomplete. Savings and specifications are quoted from the SWAM brochure.

Oil-sealed vacuum pumps

Oil-sealed vacuum pumps, particularly rotary vane pumps, trap gas between rotating vanes and a stationary cylinder, compress it and discharge it. Oil lubricates, seals and cools, enabling lower ultimate pressure. These pumps are used for vacuum drying, heat treatment, coating and other industrial processes.

Advantages

High compression ratio, reliability and low maintenance costs.

Technical specifications

Capacity: 30-600 m³/h.

Ultimate pressure: down to 0.01 Torr.



Single-stage rotary vane pumps

The SWAM pump compresses and discharges air in one stage for applications requiring a moderate vacuum.

Technical specifications

Capacity: 65 to 300 m³/h.

Ultimate pressure: down to 0.37 Torr.



Vacuum systems and packaged units

- SWAM offers complete turnkey vacuum systems delivering ultra-high vacuum*. Our engineered units include all components needed for reliable, efficient operation: high-quality backing pumps, powerful vacuum boosters, efficient condensers, precise measuring instruments, dependable switches and starter control panels.

- Every component is carefully designed and rigorously tested to meet high standards. Flexible packaged solutions are fully tailored to your specification: from a single booster with a backing pump to multistage arrangements with up to five boosters and a condenser-receiver for maximum evacuation efficiency.



Whether you need the deepest vacuum, rapid achievement of operating pressure or a clean, contamination-free environment, SWAM has the expertise and technology. Our team works closely with customers, analyses their needs and develops a custom unit integrated into the process and delivering results from day one.

- Choosing a SWAM vacuum system means acquiring high-grade equipment and a team invested in your success. We provide performance and support from initial consultation through installation, commissioning and operation. Discover the SWAM advantage and new possibilities for your vacuum processes.

* The term 'ultra-high vacuum' is retained from the original; the pressure range must be confirmed with SWAM.

Shell and tube heat exchangers

Shell and tube heat exchangers are designed for a wide range of capacities and sizes. Manufacture follows TEMA/ASME requirements for unfired pressure vessels and ASHRAE standards. Custom designs are available for special applications, including seawater service and steel shells, to customer requirements and specifications.



Shell and tube heat exchangers efficiently transfer heat between two media, heating or cooling process streams across industries.

- Power: condensers, evaporators and other heat transfer systems at power plants.
- Petrochemicals and chemicals: distillation, reaction processes and cooling at chemical plants and refineries.
- HVAC and refrigeration: chillers transferring heat between refrigerant and water, and evaporators in air cooling systems.
- Shipbuilding and defence: durability for marine conditions and specialised systems.
- Food processing: pasteurisation, sterilisation and processes requiring precise temperature control.
- Other industries: pulp and paper, pharmaceuticals, air treatment, metallurgy and mining.

Shell and tube construction is effective at high pressures and flow rates, offering reliability, performance and strength in demanding conditions. Its flexible, robust design enables efficient heat transfer in industry's core processes.

Acoustic enclosures and silencers

Acoustic enclosures are engineered to reduce noise from industrial machinery, generators and other equipment to acceptable levels. They comprise modular steel frames and prefabricated sections with high-performance acoustic panels. Panel thickness and composition are selected for each application.

Key benefits of acoustic enclosures:



- Noise reduction. The enclosure acts as a sound barrier, significantly reducing noise transmission from equipment to its surroundings. This supports safe, comfortable working conditions and compliance with noise limits.
- Insertion loss. This is the difference in sound pressure levels with and without an enclosure. The brochure notes that many industrial standards and local regulations set a minimum reduction, often 25 dB(A) or more.*
- Compliance. The design is adapted to regulatory and industry requirements, supporting lawful operation and reducing the risk of fines or shutdowns resulting from noise complaints.
- Custom design. Modular frames and panels enable adaptation to equipment of almost any size and shape and integration into new or existing facilities.
- Durability. Robust steel construction and quality acoustic materials withstand demanding industrial conditions, providing long-term noise reduction with low maintenance.

* The source claim is retained; applicable regulations and required noise reduction are defined for each project.



Turnkey projects at SWAM



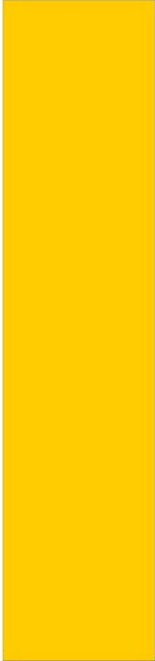
We have successfully delivered and commissioned projects supplying rotary machinery, electric motors, variable frequency drives, power cables, transformers, measuring instruments, vibration monitoring systems, valves and other components.

SWAM delivers turnkey projects: complete design, engineering, electromechanical equipment supply and support for execution and commissioning. This is enabled by an experienced team of mechanical, electrical and instrumentation engineers.

- Sulphur recovery unit (SRU) blower packages
- Lime kiln blower packages
- Mixed gas boosters
- Turnkey vacuum systems for steel degassing plants
- Steam turbine condenser vacuum units
- Turbo blower and turbo compressor packages
- High-vacuum units for process plants
- Hydrogen transfer and pressure boosting compressors
- Blowers and compressors for gas transfer and boosting at high pressure
- Ultra-high vacuum units with screw pumps*
- Biogas compressor packages
- Turnkey gas mixing stations: instruments, controls, valves, calorific value (CV) analyser and more.

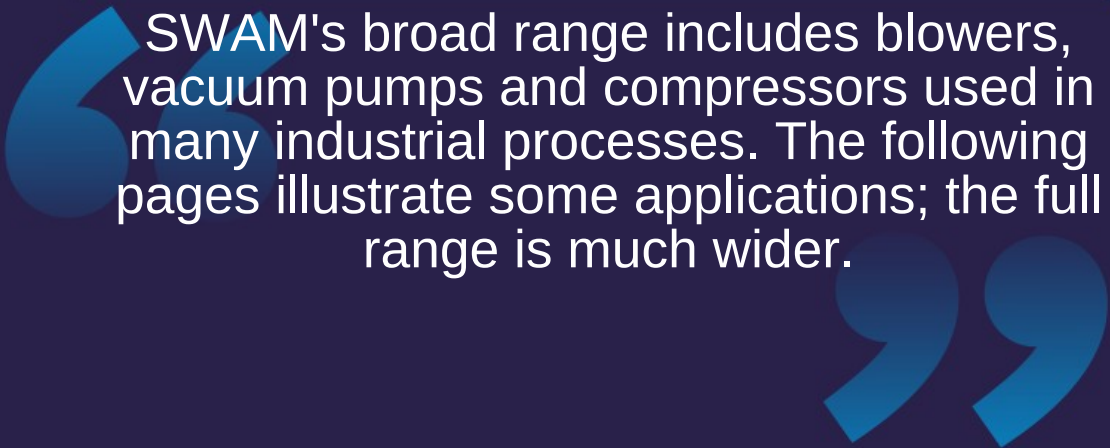
* Original term; the achievable pressure range requires confirmation by SWAM.





Applications for our products

SWAM's broad range includes blowers, vacuum pumps and compressors used in many industrial processes. The following pages illustrate some applications; the full range is much wider.



A large industrial furnace in a steel mill, with bright orange molten metal and a shower of sparks. The furnace is a large, cylindrical structure with a complex internal design, and it is surrounded by a network of steel beams and scaffolding. The sparks are flying out of the top of the furnace, creating a dense, golden-yellow cloud. The background shows the dark, industrial interior of the mill, with various pipes and structural elements visible.

Metallurgy

- Steel, aluminium, mining, copper and nickel production
- Lime calcination
- Pneumatic conveying
- Oxygen plants (VPSA)
- Boosting mixed, coke oven and blast furnace gas
- Smelting operations
- Direct reduced iron (DRI)
- Engine-driven emergency blowers
- Inert gas blowers

Power plants

- Ash conveying
- Fluidisation
- Flue gas desulphurisation
- Vacuum pneumatic conveying
- Condenser vacuum pumps





Industrial processes

- Booster pumping
- Oil-free industrial gas transfer
- Vacuum cleaning and drying
- Fluidised bed combustion
- Boosting

Cement plants

- Material conveying
- Fluidisation
- Air lifting
- Mixing
- Pneumatic conveying



A large circular wastewater treatment tank with a wooden fence in the foreground and a control building in the background.

Water, wastewater treatment and environmental protection

- Primary settling (anaerobic digestion)*
- Tank aeration
- Digester gas handling
- Biogas pressure boosting
- Sand filter backwashing
- Air bubbling
- Air scouring
- Ozonation
- Vacuum truck blowers
- Mechanical vapour recompression

* Wording from the original:
these are different processes.

Oil refining and petrochemicals

- Sulphur recovery and dewaxing
- Nitrogen boosting and transfer
- Hydrogen generation plants
- Plant utilities and FCC units
- Pneumatic conveying
- Corrosive gases
- Gas boosting, circulation and extraction
- Solvent vapour recovery
- Vacuum distillation
- Vapour recovery units
- Vacuum deaeration





Chemical and process industries

- Pneumatic conveying
- Corrosive gases
- Gas boosting, circulation and extraction
- Vacuum distillation
- Vacuum drying
- Solvent recovery
- Fractional distillation
- Sulphur recovery and thermal oxidation

Food, dairy and yeast industries

- Pneumatic conveying
- Fluidisation
- Gas extraction
- Vacuum drying
- Deodorisation
- Fermentation aeration





General industrial applications

- Material conveying
- Fluidisation
- Air lifting
- Mixing
- Pneumatic conveying



Why SWAM is the best choice

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Certified quality system

Present in more than
15 countries

In-house cycle

Design, engineering, manufacturing,
testing and packing

Proven experience
across applications and industries

Over 40 years
of air and gas experience

55,000+ installations
worldwide

A strong
project management team

Industry expertise
knowledge and project delivery

A focus on quality and reliability

Quality and performance are the responsibility of every SWAM employee, starting at the shop floor. Quality control operates at all levels of the organisation, and compliance with standards and specifications is ensured in every aspect through to customer delivery.

The quality system includes each worker's self-inspection under the supervision of quality control engineers. Every blower and pump undergoes thorough tests at different manufacturing stages and a multi-hour test run before shipment, in accordance with applicable standards, customer specifications and the approved quality plan.

Our highly reliable products are designed and manufactured with a guaranteed service life of at least 25 years.*



* Service life is SWAM's wording. The original brochure does not specify the commercial warranty term.

Over 55,000 SWAM installations in
more than 15 countries



In Russia - VERTICAL LLC

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Head office and Plant I: C-2, Sector-3, Noida-201301, Gautam Budh Nagar, India
Plant II: B-9, Sector-57, Noida-201301 | Plant III: B-111, Sector-67, Noida-201307
Plant IV: C-52, Sector-57, Noida-201301 | Plant V: A-24, Sector-80, Noida-201301

Manufacturer: www.swamatics.com

Technical support and service

Together with SWAM, we advise on operation and coordinate warranty and post-warranty service. Please contact VERTICAL LLC for technical and service enquiries.

The scope of work and warranty terms are defined by the supply contract and the manufacturer's documentation.

Contacts for your regional representative are on the SWAM website