eneva
Energy Engineering

ENGINEERING ENERGY INTO PERFORMANCE

- WASTE HEAT RECOVERY
- ENGINEERED PROCESS EQUIPMENT
- OIL & GAS SOLUTIONS
- HEAT TRANSFER SYSTEMS

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Energy Engineering

At ENEVA, we transform thermal energy into performance through advanced engineering solutions.

- By combining custom-engineered equipment with advanced heat transfer technologies,we create solutions tailored to industrial performance.
- From oil & gas applications to complex process systems, we deliver efficiency, reliability,and measurable energy savings for our partners worldwide.
- By recovering energy that would otherwise be lost, our systems help reduce emissionsand support more sustainable industrial operations.
- Our integrated approach-from concept design to fabrication and commissioning-ensures each solution is optimized for maximum performance, energy efficiency, and long-term environmental performance.

“Engineering is not what we do.
It’s how we create value.”

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Energy Engineering

ENEVA ENGINEERING THE VALUE OF ENERGY

At ENEVA, engineering is at the core of every solution we deliver.

- We don’t just design equipment - we develop integrated systems that optimize energy, performance, and reliability.
- By combining thermal expertise with advanced manufacturing capabilities, we ensure each project meets the highest standards of efficiency, safety and long term operation.
- Every solution is carefully engineered to meet the specific requirements of each industrial process.
- From initial concept to final commissioning, our focus is always the same delivering measurable value through engineering.
- Because for us, engineering is not just a discipline - it is the foundation ofsustainable and efficient energy systems.

OUR CORE SOLUTIONS

WASTE HEAT RECOVERY SYSTEMS

Waste heat boilers, economizers, recuperators and customized energy recovery solutions for industrial processes.

ENGINEERED PROCESS EQUIPMENT

Steam silencers, exhaust silencers, exhaust dampers, deaerators, reboilers, and pressure vessels for industrial applications.

OIL & GAS SYSTEMS

Water bath heaters, process heaters, and heat exchangers for oil & gas applications.

HEAT TRANSFER SYSTEMS

Hot air and gas generators, thermal oil heaters, fired and indirect steam generators and heat transfer systems.

INDUSTRIES WE SERVE

- Oil & Gas
- Petro chemicals
- Power & Energy
- Cement
- Chemicals
- Food & Process Industries

OUR APPROACH

From concept and engineering to manufacturing and commissioning, ENEVA delivers complete, integrated solutions tailored to each project's requirements.

FROM WASTE HEAT TO PERFORMANCE

WASTE HEAT RECOVERY SYSTEMS

Advanced waste heat recovery systems designed to maximize energy efficiency, reduce emissions, and convert lost energy into usable energy and measurable performance.

ENEVA designs and delivers high-performance waste heat recovery systems tailored to industrial processes.

By capturing and reusing energy that would otherwise be lost, our solutions improve efficiency, reduce operational costs, and support sustainable production.

From waste heat boilers and HRSG systems to economizers and customized recovery solutions, each system is engineered for maximum performance, reliability, and long-term operation.

WHY WASTE HEAT RECOVERY?

- Reduce energy consumption
- Lower operating costs
- Reduce emissions and carbon footprint
- Improve overall plant efficiency
- Generate additional usable energy

OUR SOLUTIONS INCLUDE

- Waste Heat Boilers
- Heat Recovery Steam Generators (HRSG)
- Economizers
- Recuperators
- Customized Energy Recovery Systems

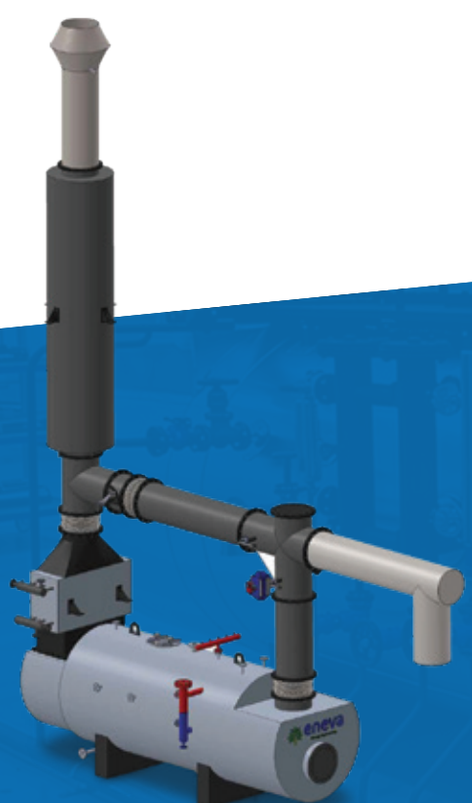
WASTE HEAT BOILERS

Efficient heat recovery-engineered for maximum performance

Waste heat boilers are designed to recover thermal energy from exhaust gases and convert it in to usable steam, thermal oil, or hot water.

ENEVA waste heat boilers are specifically engineered to operate under demanding industrial conditions, delivering high efficiency, reliability, and long-term performance.

By utilizing waste heat from cogeneration (CHP) engines, gas turbines, or industrial processes, our systems reduce energy consumption, lower operational costs, and support sustainable production.



KEY FEATURES

- Efficient heat recovery from exhaust gases
- Designed for high-temperature and corrosive environments
- Flexible operation under fluctuating load conditions
- Optimized heat transfer surface design for maximum performance
- Low maintenance and long operational life
- Water tube, finned tube, and fire tube design options
- Designed to meet allowable process back-pressure limits
- High efficiency economizer/recuperator integration

ECONOMIZERS

Maximizing efficiency-recovering heat before it is lost

Economizers are designed to recover residual heat from exhaust or process gases and improve overall system efficiency by preheating feedwater, process water, or similar fluids.

ENEVA economizers are engineered to enhance heat recovery performance while reducing fuel consumption and operational costs.

By integrating economizers into existing boiler systems, significant energy savings can be achieved with minimal additional investment, often resulting in short payback periods.

KEY FEATURES

- Recover residual heat from flue gases
- Improve overall boiler and system efficiency
- Reduce fuel consumption and operating costs
- Improve thermal performance with minimal investment
- Compact design and easy integration into existing systems
- Designed for high-temperature and corrosive conditions
- Low pressure drop and stable system operation
- Preheating feedwater to reduce thermal stress and extend boiler lifetime

ENGINEERED FOR PERFORMANCE-BUILT FOR DEMANDING CONDITIONS

ENGINEERED PROCESS EQUIPMENT

Advanced process equipment designed to meet demanding industrial requirements.

ENEVA delivers custom-engineered solutions that ensure reliability, safety, and long-term operational performance.

From steam and exhaust silencers to specialized process equipment, our solutions are tailored to specific process conditions, delivering optimized performance across a wide range of industrial applications.

With strong engineering and manufacturing capabilities, we support projects from design to fabrication and commissioning.

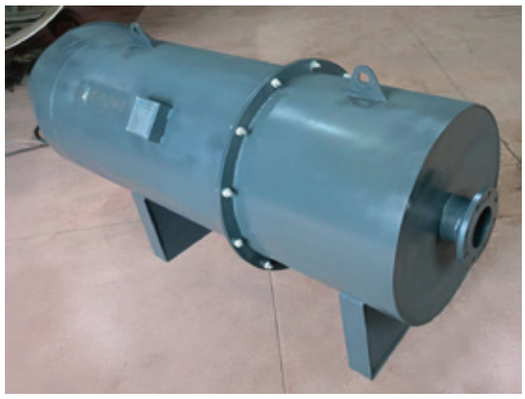
WHY ENEVA ENGINEERED EQUIPMENT?

- Custom-designed solutions for specific process requirements
- High reliability under demanding operating conditions
- Compliance with international design and manufacturing standards
- Optimized performance and long service life
- Flexible integration into new and existing systems

OUR SOLUTIONS INCLUDE

- Steam Silencers
- Exhaust Silencers
- Dampers
- Deaerators
- Reboilers
- Pressure Vessels

STEAM SILENCERS



Effective noise reduction-ensuring safe steam discharge

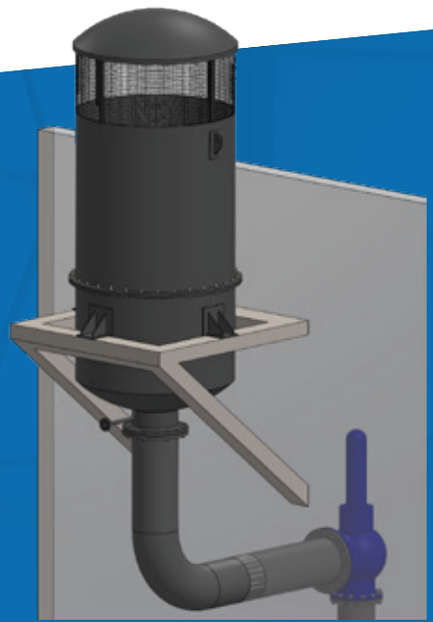
Steam silencers are designed to reduce noise generated during the discharge of high-pressure steam to the atmosphere.

ENEVA steam silencers provide safe, controlled, and efficient steam release while significantly lower ingnoise levels.

With advanced acoustic engineering, our systems are designed to meet project-specific noise limits and environmental requirements.

Widely used in power plants, cogeneration (CHP) systems, and industrial facilities such as paper mills.

Our silencers ensure compliance with strict acoustic and safety standards.



KEY FEATURES

- High noise attenuation for high-pressure steam discharge
- Designed for safe and controlled steam release
- Suitable for continuous and intermittent operation
- Low back pressure to maintain system performance
- Robust construction for high-temperature and high-pressure conditions
- Custom design based on process and acoustic requirements
- Designed to meet project-specific noise level criteria
- Designed for thermal cycling and varying operating conditions
- Material selection optimized for temperature, pressure, and process conditions
- Optional accessories such as rain hoods and bird screens for outdoor applications

EXHAUST SILENCERS

Efficient noise control-optimized for exhaust gas systems

Exhaust gas silencers are designed to reduce noise generated by exhaust gas systems in industrial applications.

ENEVA exhaust gas silencers provide effective noise attenuation while ensuring minimal impact on system performance.

With advanced acoustic design, our silencers are engineered to meet project-specific noise limits, reduce environmental noise impact and ensure compliance with relevant regulations and standards.

Widely used in power plants, gas turbines, gas engines, biogas engines, diesel engines, and similar industrial exhaust systems, our solutions ensure reliable and efficient operation under continuous service conditions.

KEY FEATURES

- High noise attenuation for exhaust and flue gas systems
- Designed for continuous operation under varying flow conditions
- Low pressure drop to maintain system efficiency
- Optimized acoustic design for broadband noise reduction
- Suitable for high-temperature exhaust gas applications
- Robust construction for industrial environments
- Custom design based on flow rate, temperature, and acoustic requirements
- Designed to meet project-specific noise level criteria
- Optimized material selection for temperature and corrosion conditions
- Flexible inlet/outlet configurations (axial or radial) with vertical or horizontal design options

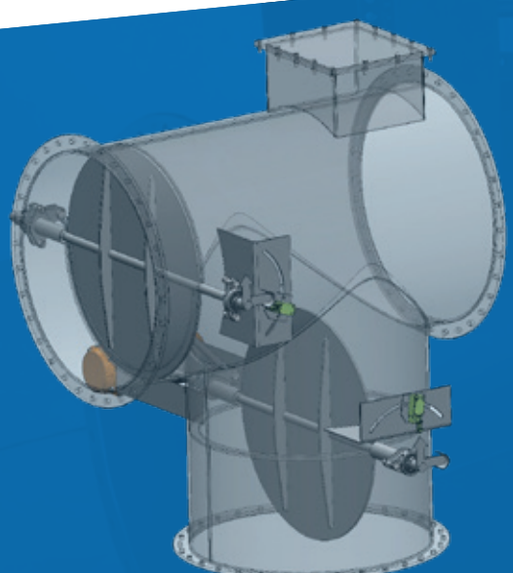
EXHAUST DAMPERS

Reliable flow control-designed for high-performance systems

Dampers are designed to control, regulate, or isolate gas and air flow in industrial systems.

ENEVA dampers provide precise flow control, reliable sealing performance with low leakage rates, and long-term operational stability under demanding conditions.

Widely used in power plants, CHP systems, cement and glass industries, boilers, heat recovery systems, and flue gas lines, our dampers are engineered to meet project-specific requirements and performance criteria.



KEY FEATURES

- Two-way and three-way damper design options available
- Precise flow control and modulation
- Reliable sealing performance with low leakage rates
- Designed for high-temperature and corrosive environments
- Robust construction for long-term operation
- Custom design based on project-specific requirements and operating conditions
- Suitable for isolation and control applications
- Designed to accommodate thermal expansion and structural loads
- Available in various configurations
  (butterfly, louver, guillotine, and multi-blade designs)
- Actuator options for on/off, electric, or pneumatic operation

ADVANCED ENGINEERING FOR OIL & GAS SECTOR

OIL & GAS SOLUTIONS

High-performance systems engineered to meet the demanding requirements of oil and gas applications.

ENEVA delivers reliable and efficient solutions engineered for safe and reliable operation under high pressure, high-temperature, and challenging process conditions.

From water bath heaters and process heaters to heat exchangers and customized systems, ENEVA solutions support upstream, midstream, and downstream operations.

With a strong focus on reliability, safety, and thermal performance, ENEVA systems help optimize processes, reduce operational risks, and ensure long-term operation.

WHY OIL & GAS SOLUTIONS?

- Ensure safe and reliable operation in critical processes
- Maintain stable performance under high-pressure and high-temperature conditions
- Reduce operational risks and downtime
- Improve overall process efficiency
- Optimize energy utilization and overall system performance

OUR SOLUTIONS INCLUDE

- Water Bath Heaters
- Heat Exchangers
- Process Heaters
- Indirect Heating Systems
- Customized Process Skids

WATER BATH HEATERS

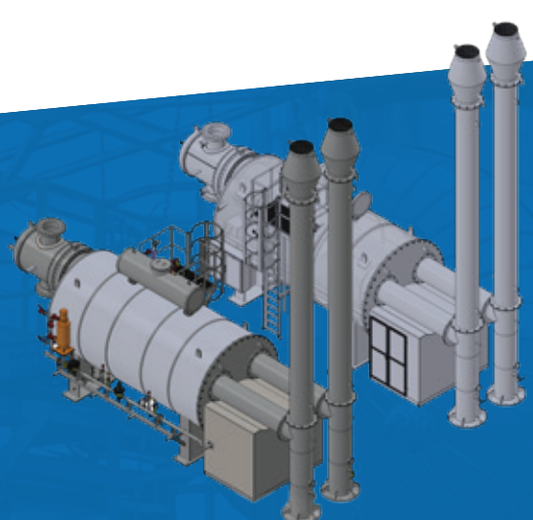
Safe and reliable heating-engineered for oil & gas applications

Water bath heaters are designed to safely heat natural gas and process fluids in oil and gas applications.

ENEVA water bath heaters provide indirect heating through a controlled water bath, ensuring safe anduniform heat transfer without direct flame contact.

Engineered for high-pressure and hazardous environments, our systems deliver reliable performance while minimizing operational risks.

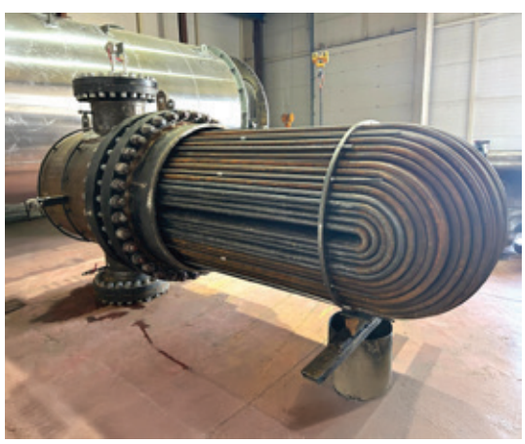
Widely used in gas pressure reduction stations, pipeline systems, and upstream and midstream facilities, ENEVA water bath heaters ensure stable temperature control and continuous operation.



KEY FEATURES

- Safe indirect heating design for hazardous environments
- Uniform heat distribution and precise temperature control
- Suitable for high-pressure gas and process applications
- Reliable operation under varying load conditions
- Robust construction for harsh outdoor environments
- Custom design based on process conditions and project requirements
- Optimized thermal efficiency and fuel consumption
- Integrated burner and PLC control system options
- Designed in accordance with relevant international standards (ASME, EN, PED where applicable)

HEAT EXCHANGERS



Efficient heat transfer-engineered for oil & gas processes

Heat exchangers are fundamental to industrial processes, playing a critical role in maintaining process continuity, efficiency, and thermal balance. They enable effective heat transfer between process fluids, ensuring stable and reliable operation across a wide range of applications.

ENEVA heat exchangers are engineered for demanding oil and gas applications, ensuring reliable operation under high-pressure, high-temperature, and corrosive conditions.

From gas processing and refining to upstream and midstream operations, our solutions are tailored to meet specific process requirements and performance criteria.

With a focus on efficiency, durability, and operational reliability, ENEVA heat exchangers support optimized heat recovery and stable process performance.

KEY FEATURES

- High-efficiency heat transfer for optimal process performance
- Designed for high-pressure and high-temperature applications
- Suitable for corrosive and demanding process environments
- Custom design based on process conditions and thermal requirements
- Optimized thermal performance with controlled pressure drop
- Robust construction for long-term and reliable operation
- Wide range of configurations (shell & tube, air-cooled, finned tube, etc.)
- Designed to accommodate thermal expansion and mechanical stresses
- Material selection optimized for process fluid compatibility
- Designed in accordance with international standards (ASME, EN, PED where applicable)

ENGINEERED FOR CONTROLLED HEAT TRANSFER PERFORMANCE

HEAT TRANSFER SYSTEMS

No industrial process can operate without heat. From chemical and thermal processes to fluid handling and manufacturing applications, controlled thermal energy is a fundamental requirement for stable and efficient operation.

ENEVA heat transfer systems are designed not just to transfer heat, but to generate, control, and deliver thermal energy precisely where it is needed.

From thermal oil heaters and hot gas/air generators to indirect heating systems and customized solutions, our systems ensure reliable temperature control, high energy efficiency, and safe operation under demanding industrial conditions.

With a strong focus on performance, safety, and long-term reliability, ENEVA solutions support consistent process quality, optimized energy use, and stable plant operation.

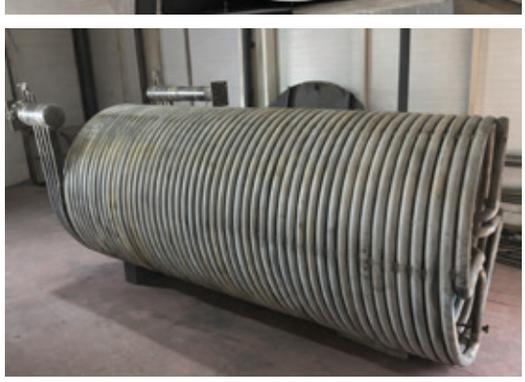
WHY HEAT TRANSFER SYSTEMS?

- Enable process operation through controlled thermal energy supply
- Ensure precise and stable temperature control
- Improve product quality and process consistency
- Optimize energy utilization and reduce fuel consumption
- Provide safe and reliable indirect heating solutions
- Compatible with various fuel types including natural gas, biogas, diesel, and solid fuels

OUR SOLUTIONS INCLUDE

- Thermal Oil Heaters
- Hot Gas Generators
- Hot Air Generators
- Indirect Heating Systems
- Customized Heat Transfer Systems

THERMAL OIL HEATERS



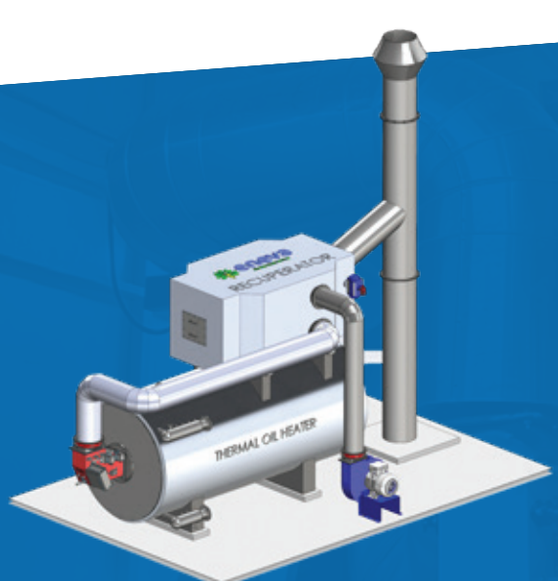
Designed for demanding high-temperature industrial processes

Thermal oil heaters are designed to provide high-temperature heat transfer using liquid-phase heat transfer fluids, enabling precise and uniform heating without requiring high system pressure.

ENEVA thermal oil heaters ensure stable and efficient thermal energy supply for a wide range of industrial applications, delivering reliable performance under demanding operating conditions.

By operating at high temperatures with low pressure, our systems offer enhanced safety, reduced mechanical stress, and long equipment lifetime.

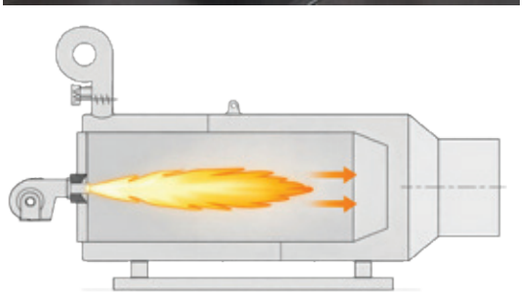
Widely used in chemical, petrochemical, oil and gas, and manufacturing industries, ENEVA thermal oil heaters support continuous operation, optimized energy efficiency, and precise process control.



KEY FEATURES

- High-temperature operation at low pressure
- Uniform and precise heat distribution
- No fluid loss or continuous water treatment requirements
- Optimized thermal efficiency and reduced fuel consumption
- Suitable for continuous and high-demand industrial operation
- Robust design for high-temperature environments
- Custom-engineered design based on process requirements
- Compatible with various fuel types (natural gas, diesel, biogas, etc.)
- Designed in accordance with international standards (ASME, EN, PED where applicable)

HOT GAS GENERATORS

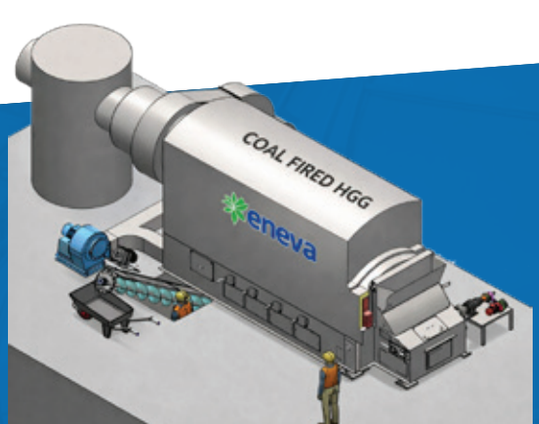


Direct high-temperature heating-engineered for efficient industrial processes

Hot gas generators are designed to produce hot gases for direct use in industrial applications, providing efficient and controlled thermal energy without intermediate heat transfer fluids.

ENEVA hot gas generators (HGG) deliver reliable and flexible heating solutions, ensuring stable temperature control and high efficiency across a wide range of applications, enabling direct heat transfer, our systems reduce energy losses, improve overall process efficiency, and support optimized fuel consumption.

Widely used in drying, cement industry, calcination, mineral processing, and various high temperature industrial applications, ENEVA hot gas generators ensure continuous operation and consistent thermal performance.



KEY FEATURES

- Direct heat generation for high-efficiency operation
- High-temperature operation with precise temperature control
- Fast response and flexible operation
- Optimized energy efficiency and reduced fuel consumption
- Suitable for continuous and high-demand industrial processes
- Robust design for high-temperature environments using high-alloy materials or refractory lining
- Custom-engineered design based on process requirements
- Compatible with various fuel types (natural gas, diesel, biogas, etc.)
- Enhanced efficiency through process gas recirculation

HOT AIR GENERATORS

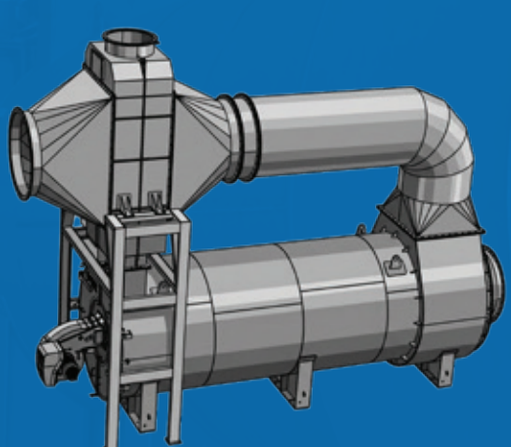
Clean hot air generation-designed for sensitive industrial processes

Hot air generators are designed to produce clean, hygienic, and controlled hot air for direct use in industrial applications where temperature stability and efficiency are critical.

ENEVA hot air generators (HAG) are high-efficiency indirect fired systems that ensure complete separation of combustion gases from process air, providing contamination-free operation for sensitive applications such as food processing and textiles.

As a compact and efficient alternative to conventional steam-based systems, ENEVA HAG solutions offer faster response times, simplified system design, and lower investment and operating costs.

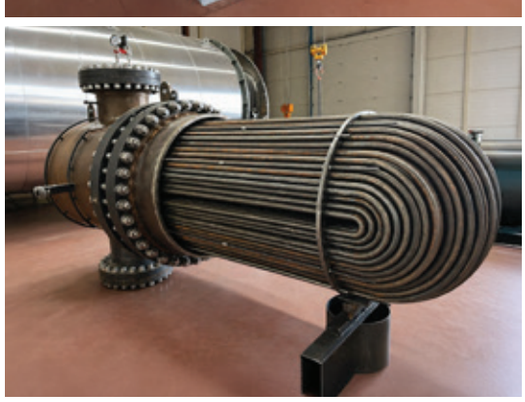
Widely used in spray drying, food processing, textiles, paper, and industrial drying applications, ENEVA hot air generators support continuous operation, high product quality, and consistent thermal performance.



KEY FEATURES

- Clean and hygienic hot air generation with complete separation of flue gas and process air
- Heating without intermediate heat transfer fluids-simple and efficient system design
- Lower investment and operating costs compared to steam-based systems
- Fast start-up and rapid temperature response
- Precise temperature control with uniform air distribution
- Reduced system complexity and maintenance requirements
- Suitable for continuous industrial processes
- Robust design for high-temperature environments
- Compatible with various fuel types (natural gas, diesel, biogas, etc.)
- No need for high-pressure steam systems-lower complexity and operating costs

INDIRECT STEAM GENERATORS



Flexible and efficient steam generation-without direct combustion

Indirect steam generators are designed to produce saturated or superheated steam using existing heat sources such as thermal oil, high-pressure steam, or hot water—without direct combustion.

ENEVA indirect steam generators (ISG) eliminate the need for a dedicated boiler, offering a compact, efficient, and flexible solution for facilities with intermittent or moderate steam demand.

By separating the primary heating fluid from the secondary steam circuit, ENEVA systems ensure safe, controlled, and reliable steam generation tailored to process requirements. High operational efficiency and the absence of flue gas losses enable clean and stable steam production while reducing system complexity, investment cost, and operational risks.

Widely used in food, textile, chemical, and energy applications, ENEVA ISG systems are also ideal for hygienic processes and facilities requiring flexibleand reliable steam supply.

KEY FEATURES

- Steam generation without direct firing—no burner, fuel system, or zchimney required
- Utilization of existing heat sources (thermal oil, steam, or hot water)
- Lower investment and operating costs compared to conventional boiler systems
- Ideal for intermittent or moderate steam demand
- High turn-down ratio for flexible operation
- Removable tube bundle design for easy maintenance
- Optimized heat transfer surface and water/steam volume ratio
- Designed to accommodate thermal expansion and minimize mechanical stress
- Suitable for hygienic (clean steam) applications with stainless steel options
- Custom-engineered design based on process requirements
- Designed in accordance with international standards (EN, PED, ASME where applicable)

ENGINEERED FOR PERFORMANCE
BUILT FOR RELIABILITY

● Energy ● Process ● Engineering

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Energy Engineering

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