AXCES EXHAUST SYSTEMS

IT’S TIME TO BREAK THE SILENCE ON AXCES

AXCES consists of a group of companies that provide fully-integrated exhaust systems for combustion engines with exhaust silencers as its core business. Anything installed after the outlet connection of a diesel engine, AXCES delivers. Fully customized to individual ships, propulsion systems or industrial machines. Specializing in the whole process of design, engineering, manufacturing and supply, AXCES offers total exhaust system supply solutions. Relatively basic solutions can be found in its wide range of standard products. AXCES is also the technical and acoustical partner that meets the most challenging noise requirements and specific silence configurations against minimum back pressure results. AXCES meets your needs with a clear focus on output, efficiency and reliability.

ACOUSTICAL XCELLENCE IN COMPETENT EXHAUST SYSTEMS

AXCES represents Acoustical Xcellence in Competent Exhaust Systems. Added value is offered by translating the results of extensive scientific research into practical, cost and time-saving solutions. Combining ingenuity with clarity, it is a philosophy that is proven to be very successful. In a few years time literally thousands of exhaust silencers have been installed both in inland and sea-going vessels, operating daily all over the world. Within AXCES, high-level scientists, team up with field experts to develop exhaust silencers and complete exhaust gas system for diesel engines that help our clients outperform competition.

THE ADDED VALUE OF THE AXCES GROUP

The Axces Group consists of several Axces divisions working closely together to bring you the best possible solution in exhaust systems. Each Axces division has profound knowledge and experience in its own specialty and is equipped with the best tools to apply that knowledge. Because Axces is present worldwide, the Axces Group through cooperation between the different parts, has always quick access to the latest technologies.

Isolation Technologies Services
ITS acoustique
Agent Commercial Commercial Agent France Tél. +33(0) 952 36 35 31 contact@its-acoustique.fr
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FULLY-INTEGRATED EXHAUST SYSTEMS

AXCES working field is defined within the framework regarding everything installed after the exhaust outlet of a combustion engine. Delivery of Fully-Integrated Exhaust Systems customized to the individual ship is our key.

DESIGN  AXCES is guaranteed to meet any noise requirement, with tailor-made silencer solutions. With strong expertise both in acoustics and physics, AXCES specializes in custom engineering.

MANUFACTURING  AXCES' knowledge centre, sales and distribution is based in The Netherlands. AXCES production in Poland produces top quality solutions at a very competitive price.

SUPPLY  AXCES can provide you with everything you need. AXCES is able to deliver new, common, or used accessories within 24 hours. Every part or system comes with full service and full technical support.

INDUSTRIES

SHIPPING  AXCES delivers worldwide and in many industries, but is specialized in the shipping industry.

ENGINE POWER  AXCES engineers deliver ideal exhaust systems for a wide range of energy systems.

ENERGY SYSTEMS  AXCES is leading the way when it comes to exhaust silencers. From basic parts that keep temporary power supplies running to essential parts for safe, efficient and clean generators.

AUTOMOTIVE  AXCES specializes in exhaust systems for really heavy-duty machinery that has to keep going, no matter what.
Moving forward to IMO Tier III and in line with current EPA and IMO standards, regulating the release of harmful NOx compounds from exhaust systems.

The integrated SCR/silencer reactor is a novel solution making Axess a market leader in this field. The new IDE - NOx reactor can very easily be swapped with the existing noise reduction elements.

This upgrade of reactor leads to a reduction in the release of toxic NOx compounds through selective catalytic reduction. At the same time it operates as a exhaust silencer with noise reduction of more than 45 dB(A).

**THE IMO TIER III ZERO NO\textsubscript{X} SYSTEM**

To comply with the IMO Tier III NOx requirements the Axess modular Zero NOx System for diesel engines in generator set applications offers reliable reduction of NOx for certain Emission Control Areas (ECA).

The Selective Catalytic Reduction (SCR) reduces NOx with use of UREA (AdBlue) injection in the exhaust stream.

- Both Inline and Compact IDE-NOx System available in every size engine room.
- It is possible to combine a customised Zero Soot Systems to avoid excessive experience particulates on deck, common diesel fuel in seawater and diesel feed smell.
- The Axess system range has been designed to form a match with the auxiliary and generators from 100 kW up to 8.000 kW.
- The PLC control ensures an smart trouble free operation for all available parameters, alarms & events, history and data logging.
- Integrated sound attenuation.

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EXCELLENT SILENCER UNIT

This system has an excellent prepared Silencer to SCR unit with an attenuation of more than 40 dB(A), which silences the complete frequency range.

NOx REDUCTION UNIT

The damping units are easily swappable and guarantee a NOx Reduction of more than 80%. The catalyst is a high-quality Venadium Based unit, which ensures minimum back pressure.

PERFORMANCE

NOx = Nitrogen oxides* 80% NOx reduction
HC (Hydro-Carbons) 20 - 30%*
CO (Carbon-Monoxyde) 20 - 30%*
Sound attenuation** ca. 35-45 dB(A)

* depending on exhaust temperature
** lower value for high systems / higher value for compact systems

SYSTEM PARTS

- CONTROLLER
  - PIC control terminal
  - Full-colour 7” HMI touch screen
  - Logging: Yes
  - Communication with motor management
  - Internal/External engine load signal
  - Engine on, Outputs, System ON, Alarm

- REACTOR HOUSING
  - Rectangular shape to reduce overall volume

- UREA DOSING PUMP
- UREA PUMP SET
- UREA INJECTOR
- SENSORS
  - Temperature and back pressure transmitter

WIRING
  - Wiring by yard on terminals

AXCES EXHAUST SYSTEMS

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OPERATIONAL CONDITIONS

Application: 5x galley vessels, kitchen vessels, super yacht
Ambient Temperature: 5 to 40°C (power temperature 60°C)
Degree of Protection: IP24
Relative humidity: ≤ 95% non-condensing
Inspection & Service interval: 1 per year or 4,000 operating hours
Compressed air for urea atomizer: 3-12 bar & test at monzberg
Urea nozzle type: 2-phase nozzle, compressed air atomization
Urea specification: 45% den (ISO541 equivalent)

SUPPLIES

Fuel: EN590 (Diesel), DMA 180 (max 2000 ppm S)
Power supply: 230V AC

DESIGN DATA

Materials: AISI 304 / 316 (lining tube)
Temperature exhaust in: 6 - 529°C (optional higher temperatures)
Max system pressure (design): 100 bar (flushing design)
Operational temperature: 620°C
Max pressure drop: 25 mbar (flushing)
Emission reduction: max. 80% exhaust NOx (max 2 g/kWh O MPI > 3-30
Control strategy: 2-stage system (Standard default) with NDS sensor
Supports: Bottom (standard), top support possible
Thermal insulation: Max 30 mm insulation / Banding or cladded insulation by customer

AXCES ONLINE ACCESSORIES WEBSHOP

You can find all of our products in the "Complete Exhaust System and Emission Technologies Webshop". This online facility gives AXCES clients direct access to more than 2,500 parts related to the exhaust gas system. Fast delivery from large stock.

COMPENSATORS • FLEXIBLE HOSES • ROOF TRANSITS • WALL TRANSITS • SUPPORTING

POINTS RAIN CAPS • MOUNTING SETS • FLANGES • GASKETS • NUTS AND BOLTS • COATINGS

STEEL TUBES • THIN-WALLED TUBES • THIN WALL INSULATED SYSTEMS • INSULATION

WET EXHAUST SYSTEMS • THIN WALL MODULAR SYSTEMS • MAMURING INSTRUMENTS • ETC.
AXCES EXHAUST SYSTEMS

AXCES PRODUCT RANGE

DRY EXHAUST SILENCERS
WET EXHAUST SYSTEMS
EMISSION - CATALYSTS
EMISSION - SC rubbers
INDUSTRIAL STACKS
PRODUCTION FACILITY
PRODUCT CATALOGUE

✓ Huge selection from small parts to complete exhaust systems
✓ Fast delivery
✓ Top quality solutions at very competitive prices
✓ Every part with full-service and full technical support

AXCES

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THE AXCES GROUP

The Axces Group consists of a total of eight companies. All focussed and highly specialized around the design, engineering, production and fitting of exhaust gas systems for use in the Marine, Industrial and Energy markets.

Whether you choose complete Fully Integrated Exhaust Systems, Water Injected Exhaust Systems, Emission Control or more limited solutions, you will always benefit of Axces’ competence and knowledge.

AXCES Holding
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