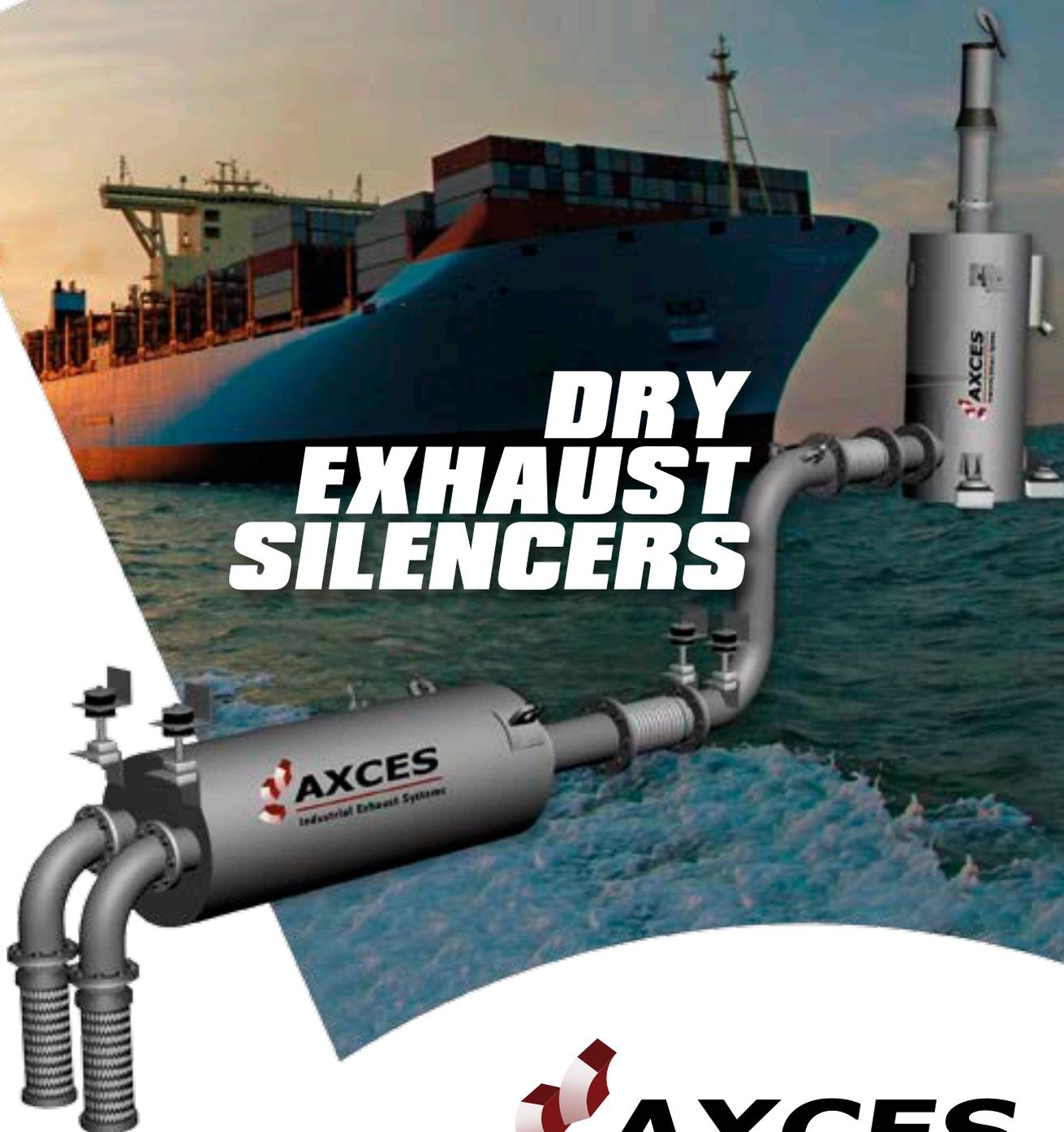


**AXCES EXHAUST SYSTEMS**

**DRY  
EXHAUST  
SILENCERS**



## 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 silencer 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 intelligence with clearness. 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 Axes Group through cooperation between the different parts, has always quick access to the latest technologies. This means Axes can deliver the best possible exhaust system for every conceivable situation for the lowest price possible and at the best conditions.



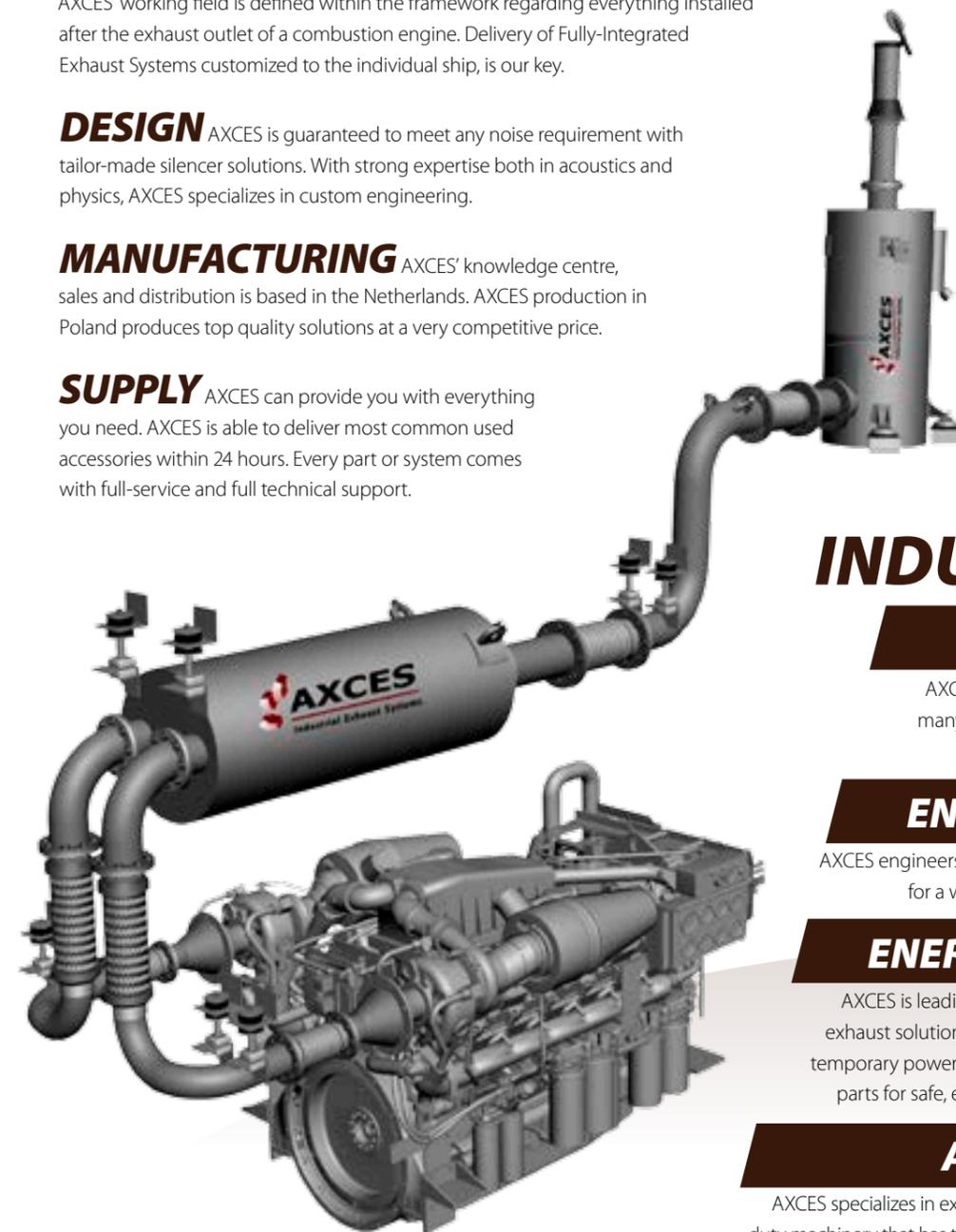
## FULLY-INTEGRATED EXHAUST SYSTEMS

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 most common 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 system for a wide range of energy systems.

### ENERGY SYSTEMS

AXCES is leading the way when it comes to exhaust solutions. 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.



## EXHAUST SILENCER TYPES

AXCES has a wide range that covers all applications and engine sizes. These silencers are divided in series depending on the application, damping technique and the desired damping levels. You can find all of our silencers in the Silencer section in our webshop.

### ABSORPTION TYPE



The noise is absorbed by specific acoustical fibre inside the silencer. The Absorption Type silencer is most effective in the middle and high frequency range.

AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
ABS	1.5" - 20"	-25	No	Absorptive	Mid-higher	Main Silencer

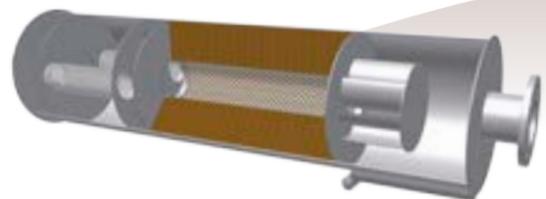
### REFLECTION TYPE



The noise is reduced by creating a gas flow through separate chambers in the silencer. The Reflection Type silencer is most effective in lower and middle frequency range.

AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
REF 25	1.5" - 20"	-20	No	Reactive/Absorptive	Lower	Pre-silencer for extra low freq.
REF 45	1.5" - 20"	-30	No	Reactive	Lower	Pre-silencer for extra low freq.

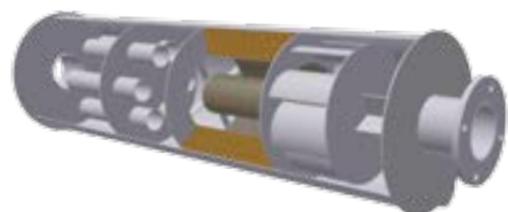
### REFLECTION | ABSORPTION TYPE



The Reflection | Absorption Type silencers are based on a combination of absorption and reflection damping techniques in order to reduce the noise in the complete frequency range.

AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
REAB 35	1.5" - 20"	-35	No	Reactive/Absorptive	All ranges	Main Silencer
REAB 40	2" - 20"	-40	No	Reactive/Absorptive	All ranges	Main Silencer
REAB 45	4" - 20"	-45	No	Reactive/Absorptive	All ranges	Main Silencer

### SILENCER TYPES WITH INTEGRATED SPARK ARRESTOR



AXCES silencers can be equipped with an internal spark arrester. AXCES spark arrestors are DNV and RMRS type approved.

AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
ABS-IS	1.5" - 20"	-25	Yes	Absorptive	Mid-higher	Main Silencer
REAB 35-IS	1.5" - 20"	-35	Yes	Reactive/Absorptive	All ranges	Main Silencer
REAB 40-IS	2" - 20"	-40	Yes	Reactive/Absorptive	All ranges	Main Silencer
REAB 45-IS	3" - 20"	-45	Yes	Reactive/Absorptive	All ranges	Main Silencer

## EXHAUST SILENCER TYPES

### SPARK ARRESTOR WITH DAMPING



AXCES has a wide range of Spark Arrestors with Damping which can be mounted in the exhaust gas system. AXCES spark arrestors are DNV and RMRS type approved.

AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
CP 18	1.5" - 20"	-18	Yes	Reactive	Lower	SA with damping level
CP 24	2" - 20"	-24	Yes	Reactive	Lower	SA with damping level
CP 32	3" - 20"	-32	Yes	Reactive	Lower	SA with damping level

### SPARK ARRESTOR



AXCES has a wide range of separate Spark Arrestors which can be mounted in the exhaust gas system. AXCES spark arrestors are DNV and RMRS type approved.

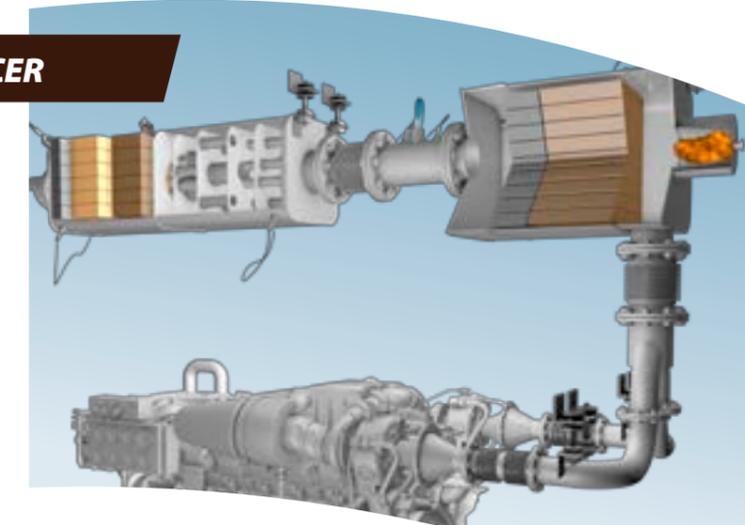
AXCES SILENCER	PIPE DIAM.	DAMPING DB(A)	SPARK ARRESTOR	DAMPING TYPE	FREQUENCY	APPLICATION
SA Spark Arr.	1.5" - 20"	-	Yes	None	None	Spark arrester (SA)

### CUSTOM MADE EXHAUST SILENCER

Engineering turns theory into practice. With a strong expertise both in acoustics and physics. AXCES specializes in custom engineering, specifically in the fields of shipping, engine power, energy systems and automotive.

When it comes to fully integrated exhaust gas systems for combustion engines, AXCES covers every aspect that matters.

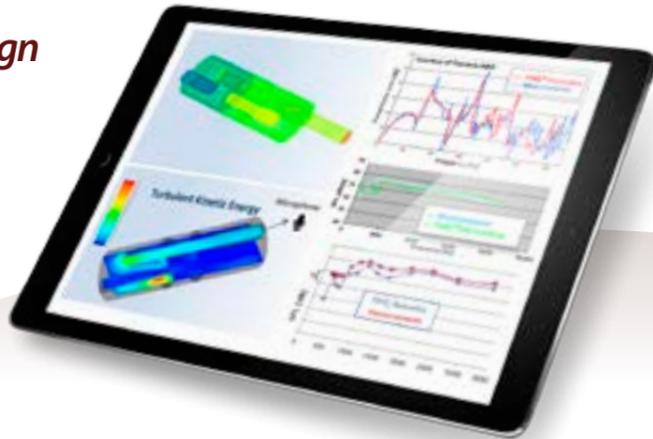
AXCES is a single partner providing clients with everything they need, from the smallest accessory to fully customized solutions. Truly a one stop shop in industrial exhaust systems.



## AXCES ACOUSTICS DESIGN

Axces designs its silencers and exhaust systems using the best Aero-Vibro-Acoustic Simulations software. This software can thoroughly calculate every aspect related to noise in an early stage of the design of the system. These calculations guarantee:

- ✓ Customized compact design
- ✓ Accurate efficient and simulation of:
  - Pipe noise
  - Transmission loss
  - Shell radiated noise
  - Flow generated noise
  - CFD Analyses
- ✓ Lower cost



## 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 TRANSISTS • 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 • MEASURING INSTRUMENTS**



## AXCES PRODUCT RANGE



## VISIT OUR ONE-STOP-SHOP WEBSITE

- ✓ 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



**WWW.SHOP.AXCES.COM**



# AXCES EXHAUST SYSTEMS



## THE AXCES GROUP

The Axces Group designs and manufactures industrial exhaust systems, silencers and chimneys including flue gas cleaning systems as well as acoustic enclosures, steel structures and steel products.

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Axces BV includes: Axces Wet Exhaust Systems, Axces Emission Technology, Axces Industrial Stacks, Axces Exhaust Systems

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