



EXHAUST SYSTEMS



bosal



Exhaust systems



Towbars



Catalytic Converters



Tubes



Warehouse Racking



Irrigation



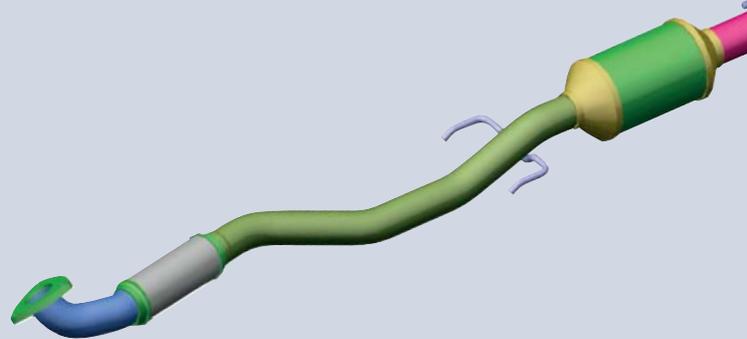
Vehicle cabs

Automotive

Manufacturing Plants: 25

Distribution centres: 27

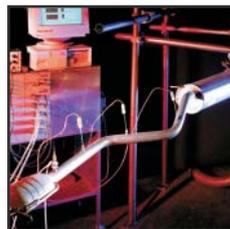
Bosal's product range



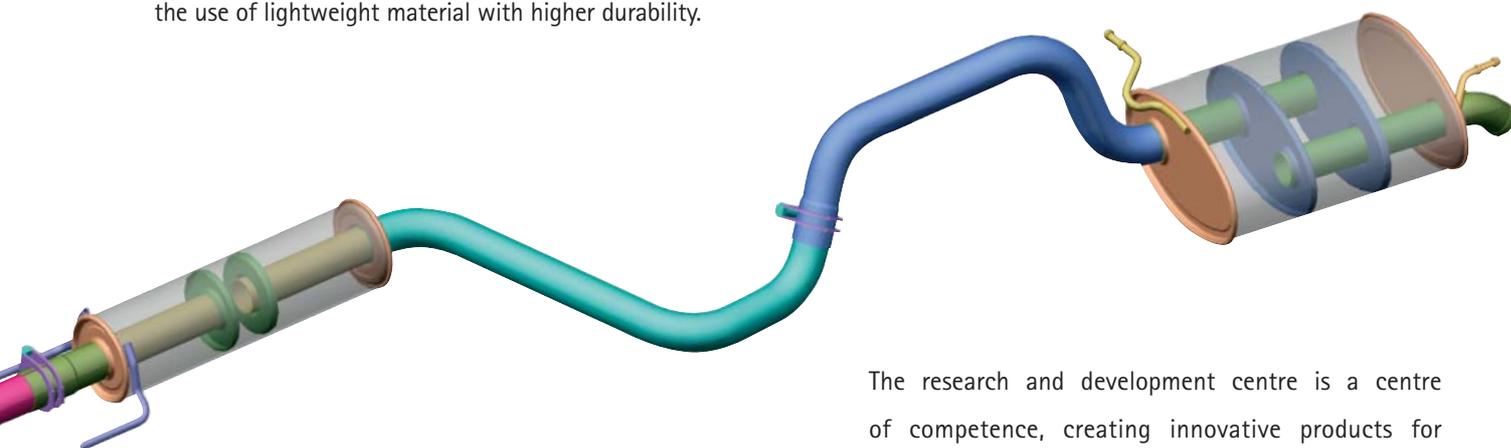
Industrial

Manufacturing Plants: 7

Research and development



Today, the pace of change in the automotive aftermarket has become more rapid than ever. There is a greater variety of car models, an influx of new products and as a result a growing complexity of the product range. Nowadays the exhaust system has developed into a complex product in its own right. It combines several functions such as the control of emissions, temperature management, noise reduction and the use of lightweight material with higher durability.

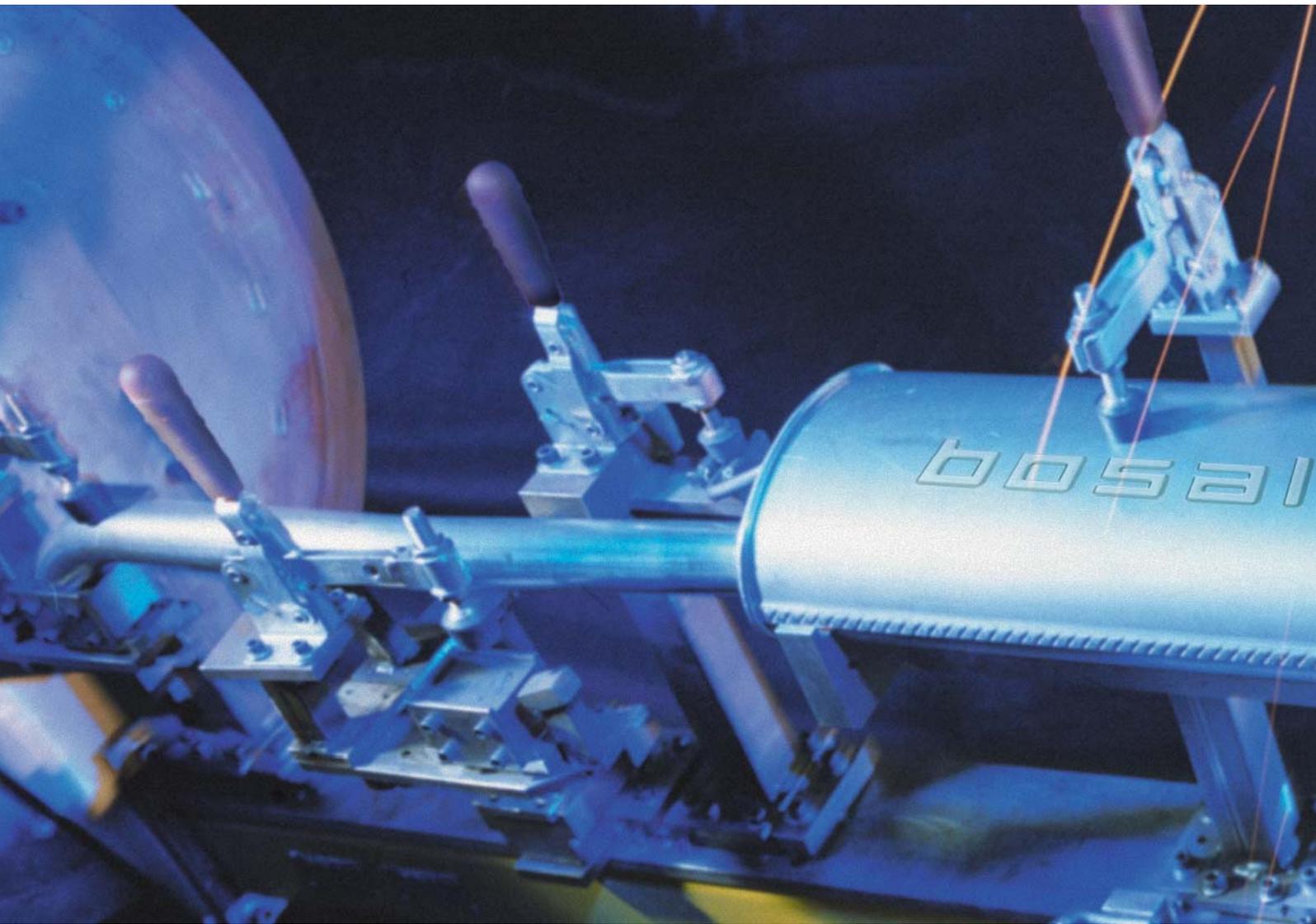


The research and development centre is a centre of competence, creating innovative products for applications in the original equipment market as well as the aftermarket.

In addition to the use of simulation techniques, all products are physically tested under extreme conditions. Bosal exhaust systems meet the most stringent standards for mechanical and thermal load, ensuring a life expectancy in line with customer needs.

The most advanced acoustic measurement techniques are used to define an optimal subjective sound level and character. All Bosal exhaust systems are tested and certified to the relevant European type approvals.

Production: From coil to customer



The competitive edge of Bosal is the vertical integration of the company. Bosal has developed an in-depth understanding of the value chain thus achieving cost leadership with unrivalled quality. All manufacturing processes of the plants worldwide are based on the same concept and are certified to TS16949 quality standards, thus ensuring the same product specification wherever the product is manufactured. Bosal uses aluminised steel as a minimum specification for its products.





Full system supplier

Bosal is a major worldwide supplier to the car manufacturers for complete exhaust systems including manifolds and catalytic converters. Part of the success has been the introduction of three various innovative concepts in exhaust system design which will make a significant reduction in tailpipe emissions by either saving weight and therefore cutting fuel consumption or by improving the after treatment of exhaust gases. Through linking the OE competences to the aftermarket, Bosal has the knowledge and capability to develop and manufacture the complete exhaust system which fulfils Bosal's definition of quality: Quality = Deliver customer needs

Downpipe

Bosal has a wide range of stainless steel downpipes which deliver optimal gas flow from the manifold to the catalytic converter. The majority of down pipes are equipped with a flexible connection ensuring that the engine movements are isolated.

Catalytic converter

Bosal is now mass-producing and marketing the proven concept of metal substrate technology for catalytic converters. This concept further enhances the reduction of emissions and ensures high durability.



Sourcing mounting parts from the manufacturer that designs and makes the exhaust systems is the only right choice. So Bosal, while developing the exhaust systems, also develops the right installation hardware for its products.



Intermediate silencer

The carefully developed interior components of the silencer reduce exhaust gas noise to a minimum. All Bosal silencers are tested according to European Community standards for noise and backpressure.

Rear silencer

Bosal offers a comprehensive range of silencers. Aluminised materials guarantee excellent protection against corrosion. The interior design of the silencer box ensures an optimal noise reduction and low backpressure. The use of laser welding manufacturing technology for half shells ensures gas tightness.



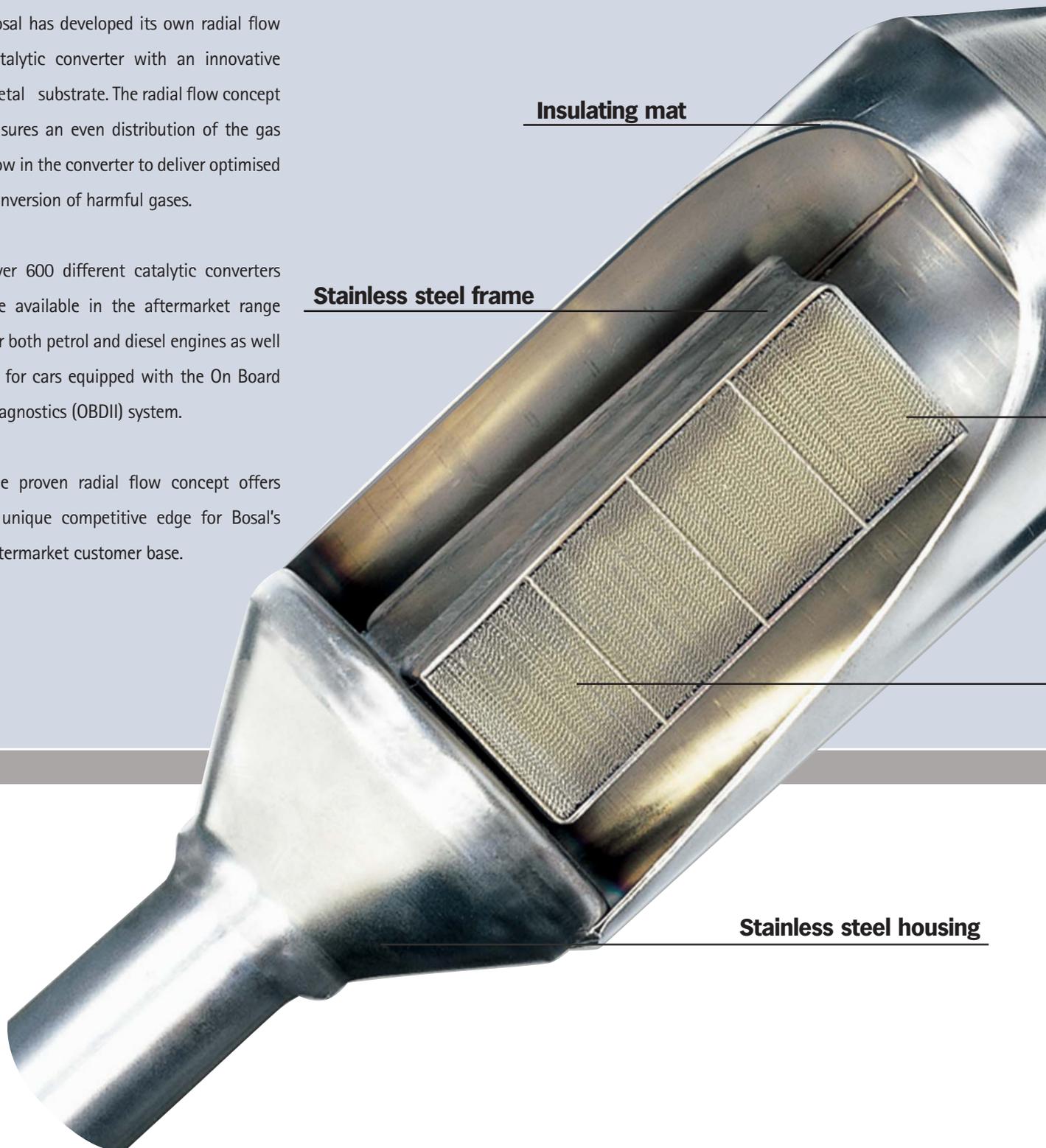


Replacement catalytic converters: Radial flow technology

Bosal has developed its own radial flow catalytic converter with an innovative metal substrate. The radial flow concept ensures an even distribution of the gas flow in the converter to deliver optimised conversion of harmful gases.

Over 600 different catalytic converters are available in the aftermarket range for both petrol and diesel engines as well as for cars equipped with the On Board Diagnostics (OBDII) system.

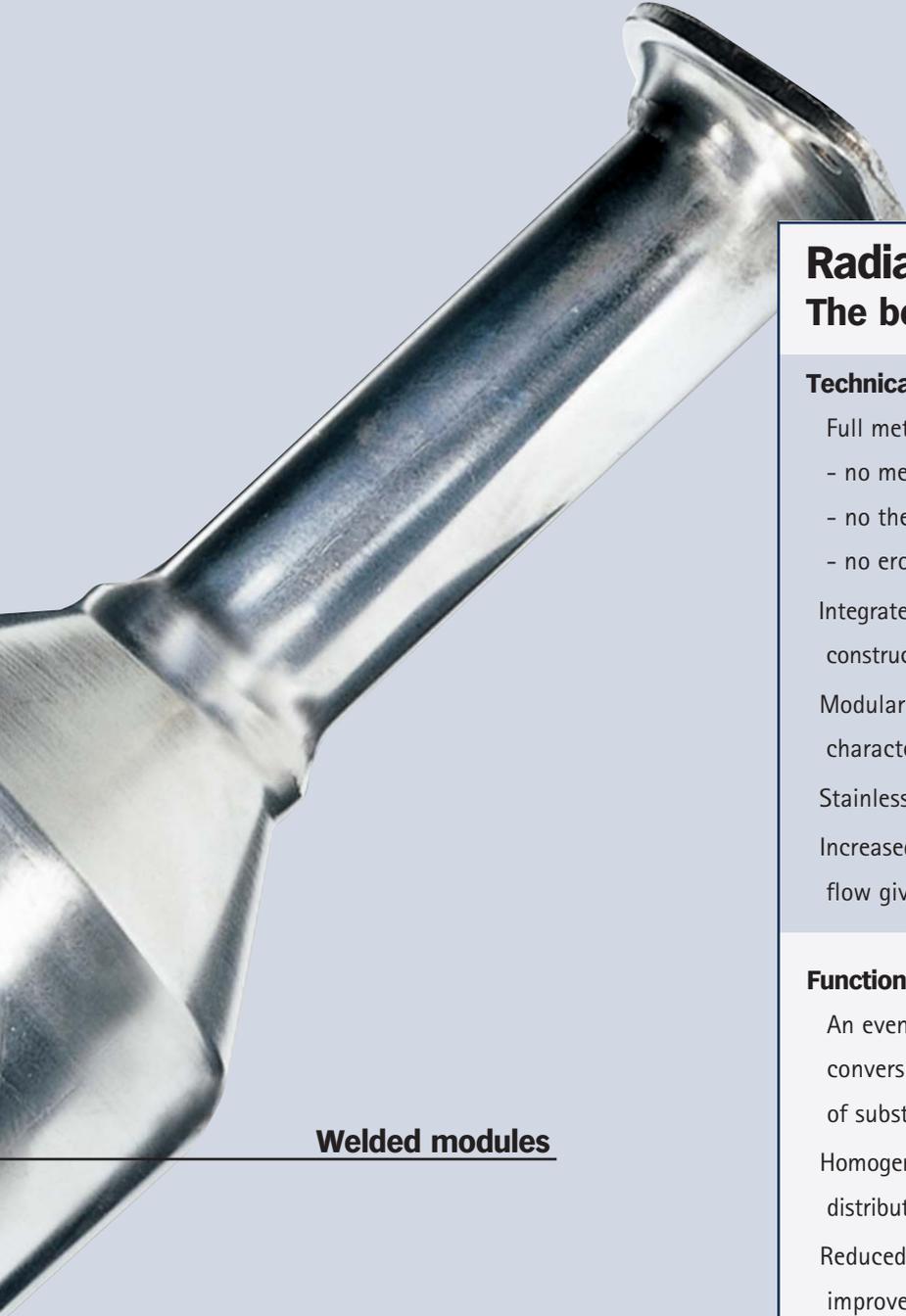
The proven radial flow concept offers a unique competitive edge for Bosal's aftermarket customer base.



Insulating mat

Stainless steel frame

Stainless steel housing



Welded modules

Coated foil strips

Radial flow Catalytic converter The benefits

Technical:

Full metal substrate:

- no mechanical defects.
- no thermal cracking.
- no erosion problems.

Integrated heat protection due to dual-wall construction with insulating mat.

Modular concept: substrate size customised to engine characteristics, resulting in optimal weight.

Stainless steel canning.

Increased cell density and evenly distributed gas flow gives consistently low back-pressure.

Functional:

An evenly-spread gas flow which ensures optimal conversion of harmful gases and optimal utilisation of substrate surface.

Homogeneous wash coat and precious metal distribution guaranteeing an optimal emission level.

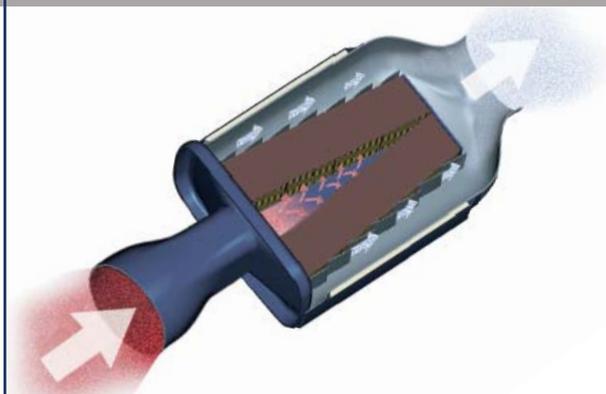
Reduced backpressure level resulting in an improved engine performance.

Ecological:

Fully recyclable.

Optimal emission level throughout the product life time.

Low noise pollution level.



Expanded product elements

Bosal's vertical integration of the various business processes ensures specific expertise and know-how of all aspects of the product design, production and distribution processes. Standardisation of the manufacturing processes worldwide ensures the same product specification and lowest cost wherever the product is manufactured.

Range

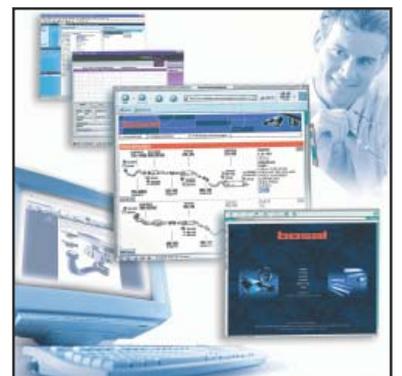
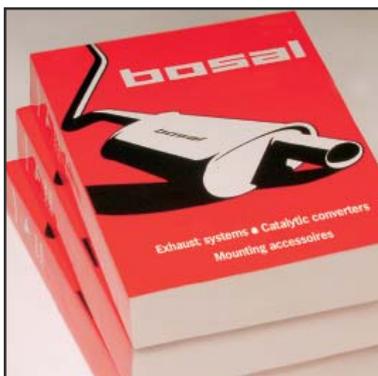
Thanks to its intensive market research and customer feedback, Bosal is in tune with changing market circumstances. That's why Bosal has the widest range of exhausts available in Europe. Over 10,000 references are available in the range to serve the European market with silencers, pipes, catalytic converters and mounting parts. Bosal advises its customers on stock optimisation, ensuring a high product availability combined with a balanced stock level.

Logistics

Bosal is a global supplier with a local presence everywhere. 'Smart' logistics is one of the key success factors and an important expanded product element that offers a substantial added value to every customer. Bosal adapts its systems to meet specific transport or warehouse solutions requirements for every fitter, wholesaler or warehouse distributor.

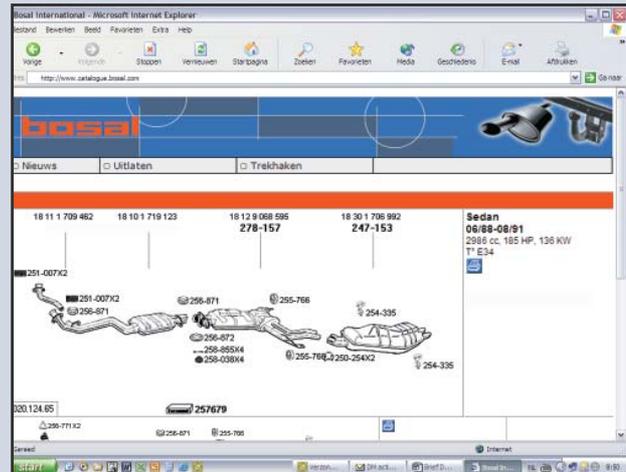
E-business

Innovative and responsive logistics are being enhanced and supported with E-business solutions that build on Bosal's partnerships with customers.



Web catalogue

To cope with the wide range of products, Bosal has invested heavily in easy-to-read printed and electronic catalogues so that parts can be identified and ordered easily and quickly. Bosal's 'State of the Art' web catalogue is updated daily with the latest information on new products and product developments.



Warehouse racking

Bosal produces its own warehouse racking and has developed a specialised warehouse concept. When combined with the unique Bosal numbering system, this enables Bosal customers to organise their warehouses in an optimal way, using less floor space and saving time when picking items.

Helpline

A dedicated, professional and highly skilled team is on hand to respond to all customer queries.

Bosal's helpline gives prompt advice on all technical issues.

Product training

Bosal customers are regularly invited to attend product seminars to stay up-to-date with the latest product developments.



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For further information visit
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or contact your local Bosal
exhaust specialist.

WWW.BOSAL.COM

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The logo consists of the word "bosal" in a bold, red, lowercase, sans-serif font. The letters are thick and blocky, with a slight shadow effect. The 'b' and 'o' are particularly prominent.