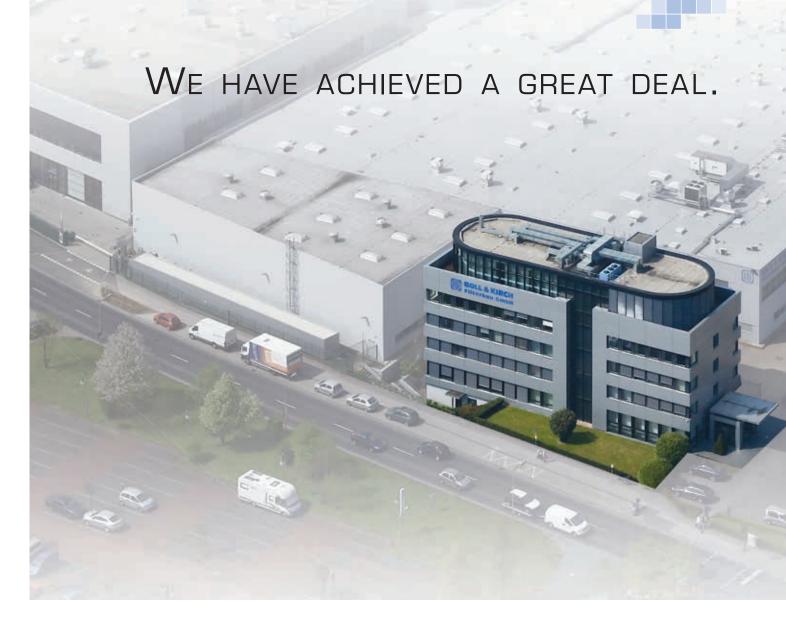




PROGRESS BY INNOVATION: WITH IDEAS TO SUCCESS

A portrait of BOLL & KIRCH Filterbau GmbH



BOLL & KIRCH Filterbau GmbH have been developing and manufacturing filters for fluids since 1950. Specialisation, competence and designing quality have led to an ever-increasing demand for our products and continuous growth to become the international market leader for filtration technology in the marine and engine construction sectors.

With numerous unique and innovative developments BOLL & KIRCH Filterbau GmbH has continued to develop alternative markets and increase its competitive position. Growth dynamics and flexibility have resulted in far-reaching expansion of the company and its production capacities. New production and logistics buildings, new plant and machinery, new organisational models and processing systems have been introduced. Many new jobs have been created.

In recent years BOLL & KIRCH Filterbau GmbH has changed more radically than ever and nowadays is a modern, dynamic global player, developing and producing stateof-the-art technology.

This brochure provides a snapshot of BOLL & KIRCH Filterbau GmbH, whilst the company continues to develop. We are personally very pleased with this current portrait and very much hope that it provides our customers and partners with an impression of our capabilities and our endeavour, which



form the basis of successful cooperation.

Dipl.-Kfm. Dr. Heinz Lux Managing Partner

Stefan Starke Managing Director

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WHAT IS THE PURE TRUTH?



CLEANLINESS MEANS SECURITY - THAT IS THE PURE TRUTH









We deal exclusively with the filtration of liquids and gases. For us, the importance, the benefits and the significance of this work is without doubt. We are convinced that we make a contribution to the improvement of living conditions of all because

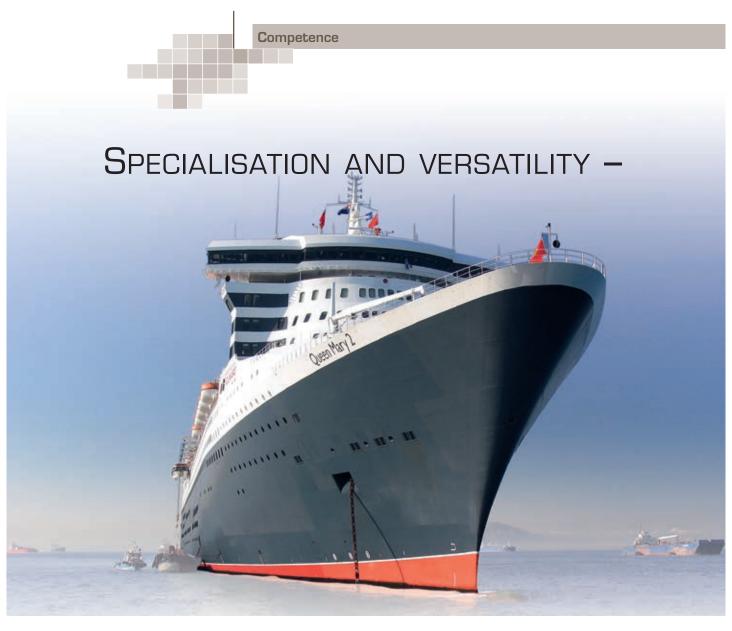
- filtration protects the value we create as it protects technical equipment from wear and destruction,
- filtration improves the quality of materials and is often necessary to make them usable,
- filtration reduces consumption, thus allowing limited resources to be used economically,
- filtration helps maintain the basis of life by ensuring that unwanted contaminants are kept out of the cycle of nature.

The principle of filtration is simple and omnipresent in our daily life: a liquid or a gas passes through a filter element whose mesh, openings or pores are dimensioned to prevent specific, unwanted particles from getting through. At industrial level, this requires a command of complex processes which are influenced by various material qualities and environmental conditions. These include quantity, pressure, temperature, density, viscosity, corrosiveness, the level of contamination, particle size and the type of medium being filtered. Years of systematic research into



these influential factors and their interaction enable us to offer a series of filter systems for various applications and fields which are guaranteed to maximise performance, reliability and protection.

















GO HAND IN HAND

BOLLFILTER

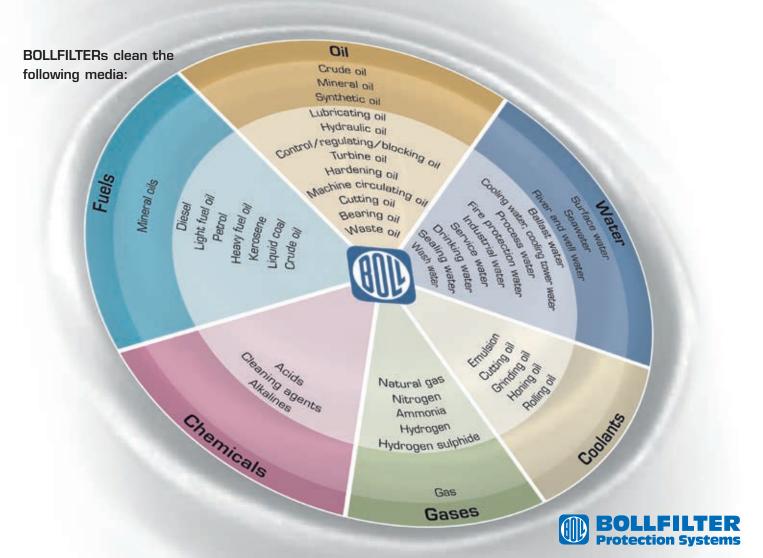
BOLLEILTER

BOLLFILTER products can be used for many applications. They include very different branches of industry, such as ship- and engine-building, steel as well as the automotive and chemical industries, power generation, water treatment and supply. The media requiring filtration also differ greatly, e.g. fuels, gas, coolants, oils, cleaning agents and water. Accordingly, the demands on the single applications vary strongly. With concentrated and fully differentiated competence we know our profession in depth and breadth. In our four divisions, "Marine & Power", "Industry & Environment", "Oil & Gas" and "Genuine Parts & Services", teams of specialists in Development, Engineering, Production and Marketing work on solutions and systems for our fields of expertise – Power, Propulsion, Auxiliaries, Process, Oil & Gas and Automotive – in order to develop and implement a solution, which is suited to the application. Accordingly, every customer is assigned a qualified contact who is not only an expert in filter engineering but is also familiar

BOLLFILTER

BOLLFILTER

with the typical, important, decisive and crucial requirements of the specific application. Specialist-to-specialist cooperation provides the focus and efficiency for supplying the cus-tomer with the ideal filter system for his needs. This expertise ensures we are the favoured partner for many customers.



Production

HIGH VOLUME OR TAILOR-MADE ITEMS

Precision and complete processing by using high-quality machine tools reduce machining time and assure first class standards.

6.









The technical facilities in our production unit are rigorously oriented to achieving the best possible **quality** and highest possible level of **efficiency**. Plant and machinery are state-of-the-art, enable the highest standard of metal processing and lead to the most precise results. Modern **CNC ma-chining centres** and **drilling machinery**, **furnace** and **welding robots**, and **material-flow-controlled assembly lines** give us the capacity we need to meet growing market demands.

WE ARE VERY FLEXIBLE

Vertical integration including welding, mechanical processing, filter element production, final assembly, plant engineering and construction also gives us complete control over all the factors which influence quality. **Independent** planning enables us to meet deadlines with the exemplary punctuality which our customers appreciate. Due to variable organizational models we can produce a wide range of differently sized orders at a justifiable cost. We continuously manufacture all types of filters on **assembly lines** which can also be used by our specialist workforce to produce tailormade parts in special sizes and designs.





EXTREMELY DURABLE AND RIGOROUSLY TESTED -

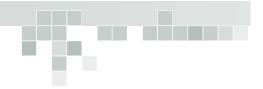


Simplex filters

Automatic filters



Duplex filters



FILTERS TO MEET YOUR DEMANDS





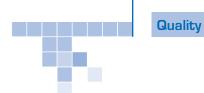


BOLLFILTERs are high-quality products. They set standards in the competitive environment of quality filter systems. This is confirmed by the numerous certifications and type approvals from international auditing companies. Amongst experts BOLLFILTER stands for highperformance, functional precision, best material, best workmanship, reliability and maintenance-free solutions.

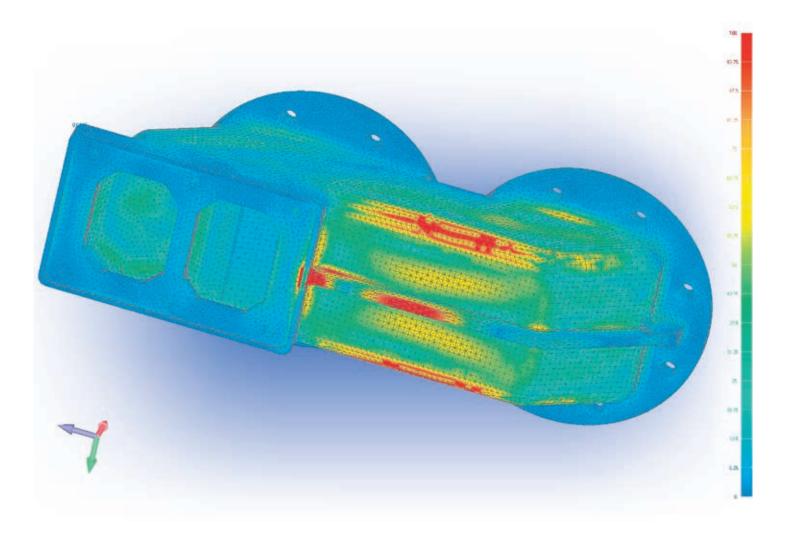
Our product range contains a full range of simplex, duplex and automatic filters, as well as filter systems and filter units in various sizes and designs. This wide range allows our customers to select an application which exactly meets their requirements. This, plus the durability of the filters, which are renowned for their decade-long service life, even under extreme conditions, makes for superior efficiency. All BOLLFILTERs meet global technical standards. We ensure this, for example, by cooperating with the world's most important classification societies, who have sufficient confidence in us to allow us to carry out certification on our own responsibility. The unique quality of BOLLFILTERs is complemented and enhanced by a functional and appealing design. We have even received awards for exemplary industrial design.







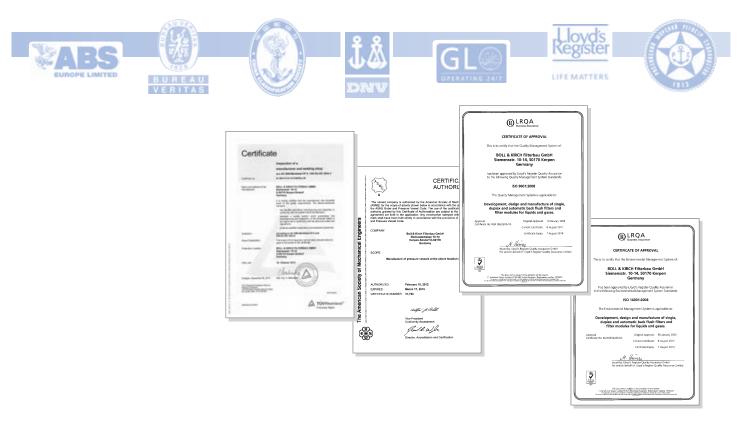
TRUST IS HIGH ON OUR LIST,











INSPECTION AND MONITORING EVEN HIGHER.

The high quality of our products results from a synergy of various factors. Top priority is given to

- the qualification of the people who design and manufacture the products,
- the quality of the materials from which they are manufactured and
- the precision of the manufacturing systems and machines.

Experience has shown us that we can rely on these primary factors for success. However, experience has also taught us that supplementary safeguards, i.e. on-going and intensive measures to prevent possible sources of errors, are required. We therefore employ a quality management which is based on a complete and methodical system of rules and checks designed to eliminate potential risks and errors. It includes, for example

- laboratory testing, right from the development phase of a product,
- the practical orientation of inhouse processes,
- training employees to assure quality,
- regular examination of materials on goods receiving,
- checks to assure suppliers adhere to current quality standards,

- intermediate and final checks during manufacture and
- the recording and documentation of all test results.

Our quality management complies with many international standards and is audited regularly. We have been ISO 9001 and ISO 14001 certified since 1994 and 2003 respectively.

You do not need to merely believe in the quality of our products – you can be certain of it.















AND THE SECRET OF OUR SUCCESS

We are in a leading position in a hard competitive environment because our products are superior to those of our competitors. We have only been able to achieve this position because we are pioneers of innovation. However, even if we are already the best in our field, we will always attempt to continue to improve.

To maintain and strengthen our leading position in the field of technology, we operate a large research and development department with a team of competent engineers to work on new filters and filter elements. They use creativity and imagination to develop new products and improvements.

They of course always consider the specific requirements of our key customers from different sectors and fields of application. The scale and extent of cooperation can vary, up to and including complete joint product development and simultaneous engineering.

We test new designs again and again, using strict procedures in laboratory experiments and simulations on test benches, before the products are ready for the market. Selected suppliers are also involved in the development of innovative solutions.

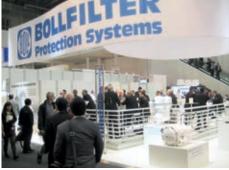
Numerous patented developments are the evidence of the success of our endeavours. The reaction of users and competitors to our innovations provides us with even clearer proof that our approach is the right one.











Committed and motivated -

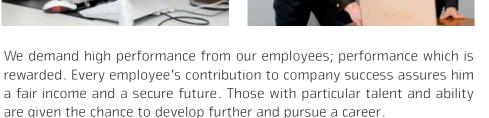


OUR TEAM GUARANTEES OUR QUALITY

We have a workforce which is the envy of many other companies. Our team is strong and qualified. Conscientious, responsible, qualified and motivated employees – who identify greatly with the company – are proud of its success, which of course is also their success.

Our employees' expertise is our greatest capital. Expert knowledge can only be found in human heads. All our intelligent machines do not have a spark of it. Only humans can think, direct, shape and control.

Our need of expertise is high. To meet this need in the long term, we provide young people with training in technical and commercial skills. We also offer further professional training because in our world of rapid technological change, it is essential to constantly update professional know-how.













WE HELP OUR CUSTOMERS



Filtration on an industrial level demands highly developed filtration systems which cannot be purchased ready-made. The requirements, systems and operating conditions vary too much. The development of a technically optimised solution requires close cooperation between the customer and us, as filter manufacturer, starting at an early planning stage.

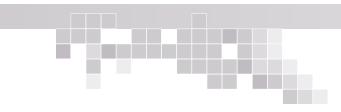
We see ourselves as a cooperative partner for our customers, to help them reach their goals. By means of customised engineering we supervise all the individual subprocesses of a project – from outlining the requirements to the realisation and operation of the system. In some cases, we may direct a project phase ourselves, and in others we may only provide supervision – it all depends on



the expertise and specialisation a project requires.

We also work closely with our customers to ensure deadlines are met. We provide your employees with training for maintenance and servicing of the filters, offer a **comprehensive maintenance and repair service** and supply **BOLLFIL**-**TER GENUINE PARTS** quickly and reliably.

For customers who have signed a "Global Agreement", we are available 24 hours a day, seven days a week via a service hotline. Our service



ACHIEVE THEIR GOALS







engineers are on call night and day with a fleet of service vehicles, and ready to catch the next flight to bring important spare parts to the customers. However, for those who are clever and use exclusively BOLLFILTER GENUINE PARTS this is a service which is rarely needed.







BOLLFILTER PROTECTION SYSTEMS and BOLLFILTER GENUINE PARTS are innovative, powerful, high-quality and safe. We protect our original technology – also for our customers – by participating in the campaign "Pro Original" of the German Engineering Federation (VDMA – Verband Deutscher Maschinen– und Anlagenbauer).



Logistics

FINAL DATES, QUANTITY, QUALITY -

6

8

- 1 Logistics centre
- (2) Provision of castings / QA testing facilities
- (3) Procurement / QA testing facilities

9

- (4) R&D laboratory / test benches
- (5) Element production
- 6 Welding





⑦ Mechanical production / QA testing facilities

(8) Final assembly of large filters

9 Series production

10 Dispatch(11) Administration



4

7

SYNCHRONISED AND DEMAND-ORIENTED

In order to supply our customers with filter systems just-in-time, we have to procure all parts and materials just-in-time for our manufacturing process. Ensuring the availability of externally purchased parts at the right time, in the right quality and in the right place is the core task of our procurement department. Its procurement activities span the globe, as does our sales and marketing network. This also allows us to act flexibly, even when faced with the fluctuations of procurement markets, and helps us to utilise production capacity as efficiently as possible.

As a continuous flow of materials can only be guaranteed by punctual procurement of sufficient quantities, requirement data from our PPS and ERP systems forms the basis for quantity and deadline planning. Modern logistics facilities then ensure the timely supply of parts and components to the production areas and assembly lines. A logistics centre, opened in 2005, provides ample warehousing capacity with a high-bay storage facility, commissioning spaces and a castings store, which is linked with the production by a conveyor system.

This all serves to ensure the ordered products are delivered fault-free and on time. Both at the beginning and the end of the logistics chain, the name of the game is supply on demand.











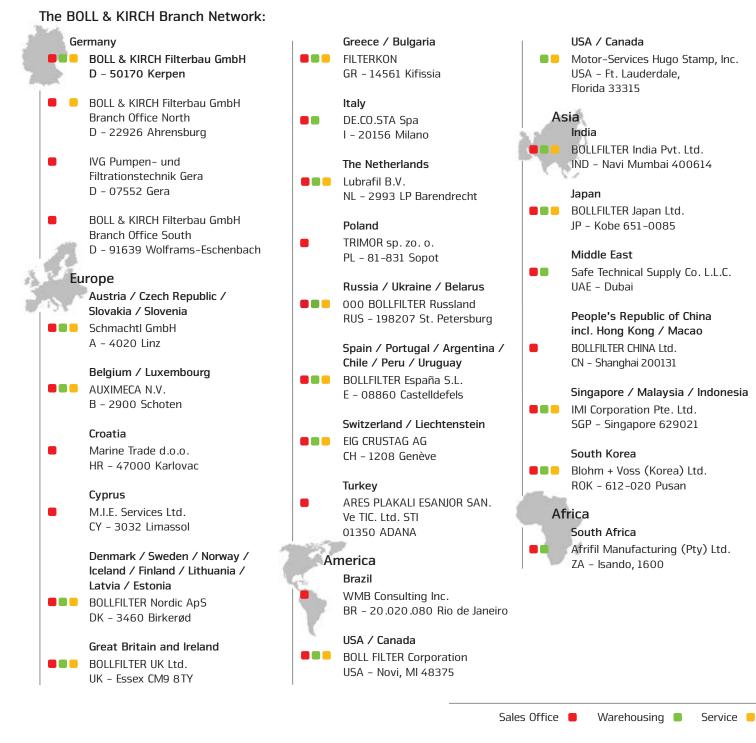


GLOBAL PRESENTATION -



Our entire service pledge – cooperation for project development, punctual delivery, product-related services and fast, reliable supply of genuine spare parts – applies worldwide. In order to be able to honour this worldwide pledge without compromise, we operate a tight network of agencies and subsidiaries around the globe. Many of our offices are located in the world's most important ports, a circumstance which has its origins in the beginning of our success story in the marine sector. Others are based in the most important industrial centres; the result of our rapid expansion into other sectors in recent years. The density of our network guarantees our customers reliability and service. At the same time, it is the stable foundation for BOLL & KIRCH Filterbau GmbH's ongoing expansion.

WORLDWIDE PRESENCE



A full list of addresses is available at www.bollfilter.com





BOLL & KIRCH Filterbau GmbH

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