



**YOUR  
CASTING  
DEVELOPMENT  
PARTNER**



# IRON BY BIRN

At BIRN we care deeply about iron castings it is something we have been doing for more than a century: developing, casting, machining and finishing top-quality cast iron components for our customers. We understand the value of strong collaboration in the production of cast goods and components. We understand how important it is for you to find a financially strong and reliable partner with supreme technical knowhow. We understand casting – it's a part of our history, and we take pride in being among the most modern and flexible foundries in Europe.

## **A GROUP OF CASTING AND MACHINING SPECIALISTS**

We are part of Vald. Birn, a Danish group of companies all specialized in casting and machining. The Birn Group dates back to 1896 and today we employ some 450 experienced employees and experts at our foundry in Holstebro, Denmark.





# DEVELOPMENT AND PARTNERSHIP

– THE CORE OF MUTUAL SUCCESS



## INVESTING IN OUR FUTURE – AND IN YOURS

At BIRN you will meet a company that is much more than just a casting supplier. Our aim is to be your preferred partner - one who understands every aspect of your production from development to delivery. At BIRN we offer a total service all the way through your value chain from the first idea to the final product. We act as your partner in the design phase and produce pattern equipment, cast, machine, surface treat and assemble your products.

All this requires a constant focus on investment in production equipment and knowhow. We have one of the most modern and up-to-date foundries and machine shops in the business and are always ready to upgrade and invest in production equipment and expertise to meet the needs of your project.



## QUALITY IN EVERY GRAIN

BIRN provides cast iron components to a wide variety of business sectors. Over the decades we have developed a strong expertise in the automotive industry, producing components for trucks and other heavy-duty vehicles where quality and durability are of vital concern.

We also produce components such as pump housings, gearbox and hydraulic parts along with many other products. In fact in any given year we produce 1,000 different components ranging in size from 200 grams to 75 kilograms, in grey iron and nodular iron including grades SiMo and ADI.

With extensive quality control and a thorough test programme of X-ray, ultrasound, 3D coordinate measuring and destructive testing we guarantee quality to the last detail.

# FROM PUMPS TO TRUCKS

– WE CAST THE COMPONENTS



# THE FOUNDRY: AN IRON WILL TO SUCCEED

## MODERN PRODUCTION LINES

Essentially iron casting has changed little since the invention of iron melting thousands of years ago, but the possibilities today are truly amazing, both in terms of precision and in terms of sheer tonnage and that is especially true at BIRN.

Our foundry consists of five fully automated vertical DISAMATIC lines and a range of medium and net frequency induction furnaces with a total capacity of up to 800 tonnes per day, all using mainly recycled first-grade steel scrap. All our equipment is fully compliant to every conceivable industry standard.



## TOOLING AND CORES

At BIRN we produce our own tooling equipment and cores using both cronite and cold box processes, all produced in-house on our extensive range of DISAMATIC core shooters. MAGMASOFT simulation software helps us maximize the production flow and eliminate the risk of porosities in the components. Deburring and grinding is performed both manually and on automated lines making visual inspection by experienced professionals an integral part of our quality assurance.



# THE MACHINE SHOP: EVERYTHING UNDER ONE ROOF



## IN-HOUSE FIXTURE CONSTRUCTION

One of the greatest advantages of having all machining in-house is that we can offer fast and competent fixture construction as an integral part of our own production process. You get precise fixtures made at the very same facility as where the actual casting takes place. In fact we offer you a total production line all under the same roof – or put another way: we add value to your production by offering speed, skill and flexibility in the critical, early phases of the components' manufacture.



## SURFACE TREATMENT AND HIGH-TECH MACHINING

Our in-house machining facilities are equipped with robust, hi-tech machinery with both flexible and high-volume production cells. We offer you a wide range of machine tools including CNC lathes and machining centres, automatic deburring and palletising equipment.

BIRN operates a multifunction coating system (MFCS) with several surface treatment processes that will meet all your demands for quality, environment and appearance, including pre-treatment (washing and rinsing), ZnMn phosphating, ED/CED/KTL, electrostatic high-speed rotation spray painting and powder coating.



# STORAGE AND LOGISTICS

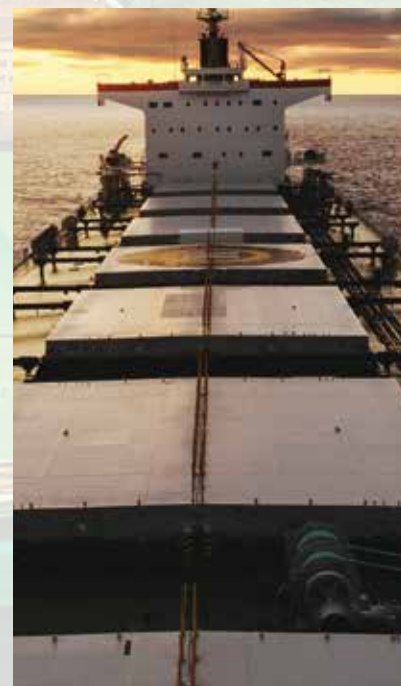
## THE STRENGTH TO INVEST

We believe in growth as a way to create even more growth. We believe in investing in the future in order to secure it. BIRN stands on a solid financial basis that allows us to constantly upgrade our production and logistics setup. When we identify a sound long-term relationship with a customer we are always willing to discuss an investment in our production to make your production run smoothly and with greater flexibility. That's our commitment to our mutual partnership.

## CONSIGNMENT STOCK AT YOUR DISPOSAL

As part of our extensive quality assurance programme we naturally offer complete access to all relevant production and shipping documents via EDI, making your own logistics and ERP safer and much more flexible.

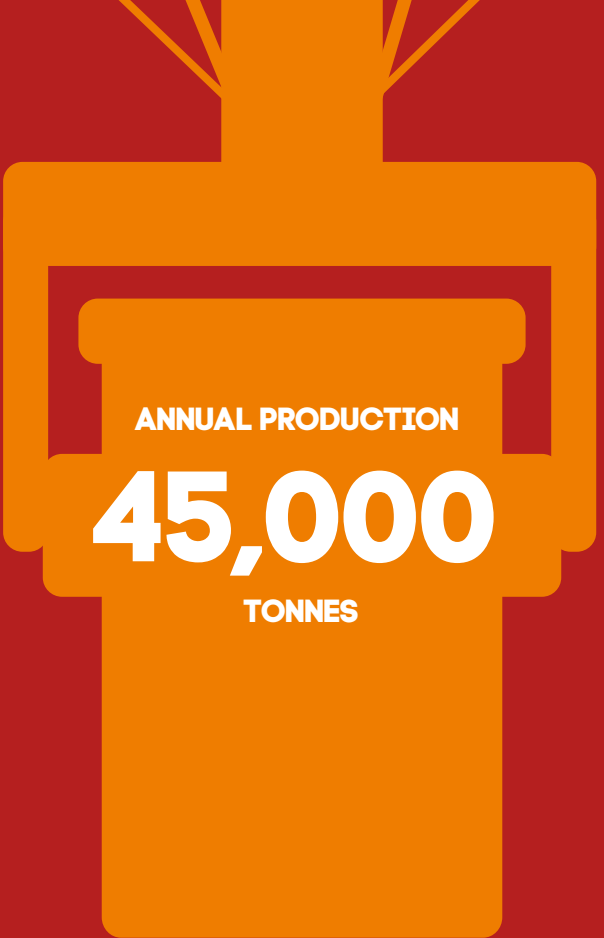
We package and ship according to your requirements and specifications – this is part of our effort to be the supplier of your preference at every step of the process. If the scale of the production and the flow of logistics warrant it we can offer you a full consignment stock package with the products in storage right where you need them.



# A FOUNDATION FOR THE FUTURE



# FACTS & FIGURES

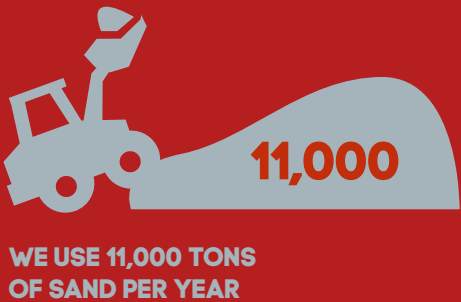
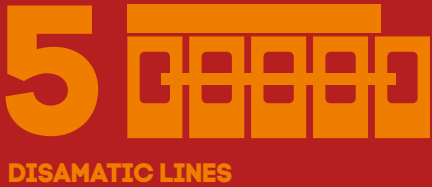


## DISAMATIC LINES

DISAMATIC VERSION	MOULDING SIZE	MOULDINGS/HOUR
230 A 230 A	480 x 600 mm 480 x 600 mm	Up to 500 mouldings/hour Up to 500 mouldings/hour
240 B	600 x 775 mm	Up to 360 mouldings/hour
2070 A 270 A	700 x 950 mm 700 x 950 mm	Up to 270 mouldings/hour Up to 300 mouldings/hour

## IRON TYPES

GREY IRON ACCORDING TO EN 1561	NODULAR IRON ACCORDING TO EN 1563	SILICON AND MOLYBDENUM NODULAR IRON (EN 16214)
Material designation	Material designation	Material designation
EN-GJL-150 EN-GJL-200 EN-GJL-250 EN-GJL-300	EN-GJS-400-18-LT EN-GJS-400-15 EN-GJS-450-10 (High silicon) EN-GJS-600-10 (High silicon) EN-GJS-500-14 (High silicon) EN-GJS-500-7 EN-GJS-600-3 EN-GJS-700-2 EN-GJS-800-8 (ADI, EN 1564) ADI 900-9 (ASTM A897) EN-GJS-1000-5 (ADI, EN 1564)	EN-GJS-XSiMo 4.05 EN-GJS-XSiMo 5.10



## **THE BIRN GROUP**

**BIRN A/S, HOLSTEBRO, DENMARK**

**TASSO A/S, ODENSE, DENMARK**

**ULDALLS JERNSTØBERI A/S, VEJEN, DENMARK**

**KOCKUMS MASKIN AB, KALLINGE, SWEDEN**

**VALD. BIRN GMBH, MÜLHEIM/RUHR, GERMANY**

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