

**WORLD OF METALS** 

# WELCOME TO THE WORLD OF METALS







## Metals are our passion

Dear Business Partner,

In 1962, our grandparents Luise and Radomir Bikar opened a small metal stockist firm in the picturesque location of Bad Berleburg. In 1990, they transferred ownership to their children Aleksandar and Konstantin. As the years went by, the company – fuelled by a loyal and steadily growing client base and an outstanding workforce – developed into one of the leading stockists of non-ferrous metals and plastics. On a global scale. Today, BIKAR employs over 300 people. Our head office, with its four factories, is located in Bad Berleburg, Germany. Our production facilities and sales offices can also be found in Korbußen (Thuringia), Italy, Austria, Slovakia, the UK, Poland, and the USA. On January 1st, 2011, the two brothers transferred the company to us, the third generation. We will endeavour to continue to guide and expand this successful family-run business with the same passion as our grandparents and parents.

Claudia Bikar Company management Diplom-Kauffrau (Graduate in Business Studies) Pascal Bikar
Company management
Master of Int. Business & Finance
Diplom-Kaufmann, MIB
(Graduate in Business Studies)

"In today's globalized metals sector, sucess depends on timely recognition of the changes in the market, early adjustment to the challenges presented and continuous investment in the latest systems. For this to work, however, a solid partnership needs to be established between the customer and the supplier." (Pascal Bikar)





## **ALWAYS IN STOCK**

BIKAR stands out with high-tech investments. Computerized high-bay storage facilities ensure optimum warehousing, perfect organization, rapid transport paths, clean surfaces and effortless traceability.

High-bay storage in Bad Berleburg (Factory II) with a capacity of 11,000 t and 1,900 storage cassettes



## **Quality and diversity**

Over many decades, BIKAR has adapted to match the needs of its customers. This is reflected in the diversity of the products that we stock, produce and are able to supply. To succeed, you need a strong partner.

#### **ALUMINUM**

#### **COPPER**

#### **BRASS**

#### **BRONZE**

#### **PLASTICS**

#### Formats available:

Plates

Sheets

Bars

Tubes

Bushings

Sections

Round blanks

Rings

Pre-cuts

Parts from drawings



Aluminum



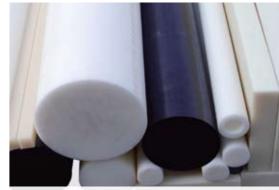
opper



Brass



Bronze



**Plastics** 

## FORMODAL®

FORMODAL® - special materials produced for tool making, mold making and model making - can be supplied from small to extra large dimensions.





FORMODAL® materials are characterized by their outstanding machining properties, low internal stresses, dimensional stability and wide range of sizes available. For basic requirements, one uses FORMODAL  $\!^{\tiny{(\!g)}}\!$  023, a cast alloy based on EN AW-5083. The starting material here is blocks with dimensions of 157.5 x 86.3 x 23.6 inches and 141.7 x 64.9 x 41.3 inches.

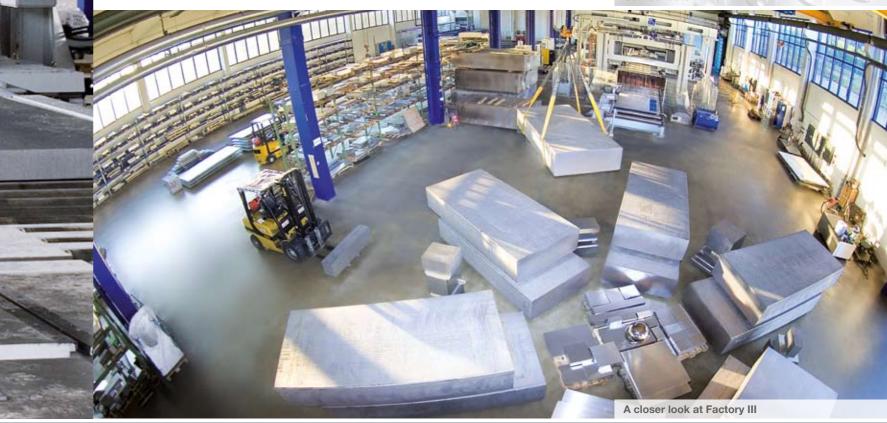
For demanding applications such as injection molding tools for series production – one should use FORMODAL® BM-400. This is a high-strength material. Depending on dimensions, it can be rolled, drawn, compressed or forged. Multiple saw plants are on hand to manufacture blocks up to 27.5 inches thick to our customers' desired dimensions.



A 22,000 lb aluminum block



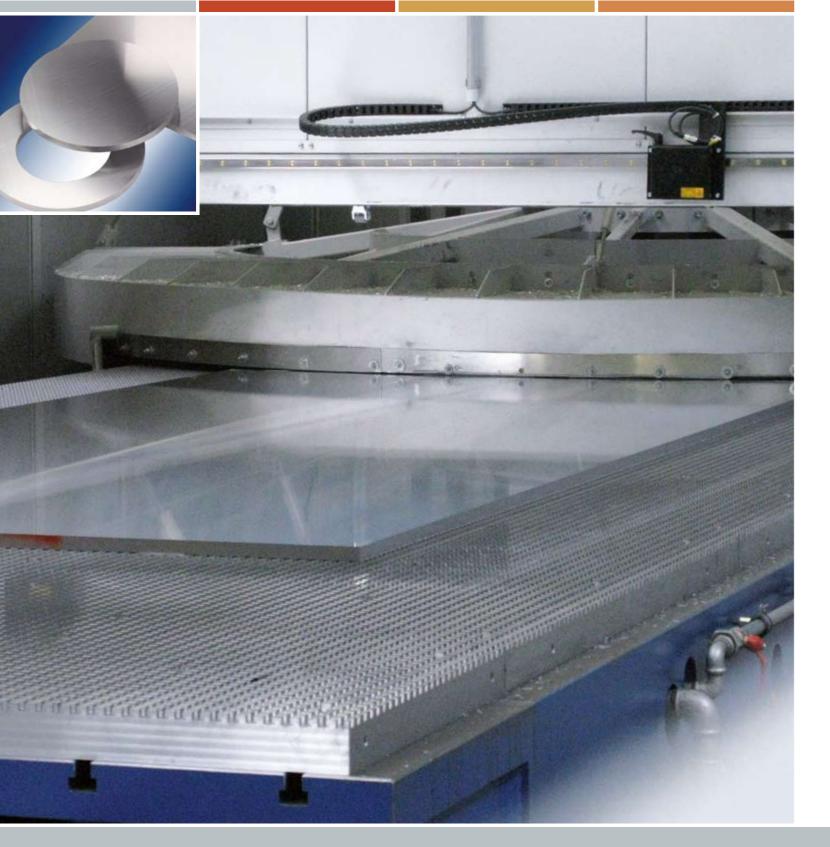




#### **MACHINING CENTRE**

Behind the scenes at BIKAR. Simply gigantic. At our machining center, we machine in a different dimension. A giant cutting head 106.3 inches in diameter machines pre-sawn aluminum plates flat, ready for tooling.

Cutting head 106.3 inches in diameter





## **Working flat out:**

we make sure that surfaces stay flat

#### Step by step from block to plate

#### Sawing to size

This is our raw material:

Aluminum blocks with the following dimensions:

236.2 and 157.5 x 64.9 x 23.6 inches

236.2 and 157.5 x 86.6 x 23.6 inches

125.9 x 64.9 x 39.4 inches

Whether horizontal or vertical, we can saw almost any dimension.

#### Machining flat

The pre-sawn raw plates are machined flat to tolerances measured in tenths of a millimetre.

#### Applying film

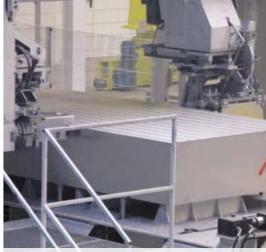
These precision-cut plates are then covered on both sides with a protective film to ensure the surface stays absolutely flawless.

#### Pre-cutting

We use a state-of-the-art saw plant to cut everything to your precise requirements. From the size of a postage stamp to a telephone booth – whether cubes, plates, blanks, rings or parts from drawings. We have a wide range of options available.

#### FORMODAL® plates

FORMODAL® plates are aluminum alloys that have been developed specially for tool making, mold making and model making. They range from cast materials given special thermal treatments (FORMODAL® 023 and FORMODAL® 030 flat) to high-strength, rolled or forged plates (FORMODAL® 060 and FORMODAL® BM-400). BIKAR is the partner that you can rely on.



Raw billets



Plate sawn to rough dimensions



Film application plant

## PRE-CUTTING CENTRE

Precision and speed are required when our customers need pre-cut parts. No matter the quantity or size - we can handle it.

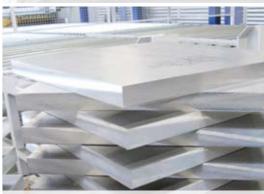
## Rolled plates

This is where high-tech equipment takes over. Once entered, customer orders are fed automatically into the control system.

Our computerized high-bay storage is connected to the saw plant and conveys the desired material to its corresponding place in a matter of seconds. Vacuum units lift the material from the storage cassette bay and place it on the saw's workbench. The plates glide safely into the machine on air cushions.

Thanks to our in-house pre-cut optimization programs, customer requirements are implemented precisely and rapidly.









## **ROUND BLANKS AND RINGS**

We manufacture to your precise dimensions using our modern blank and ring saw plant. Choose from aluminum, copper, brass, bronze or plastics.

Blank saws and ring saws



## Well-rounded:

### from a square to a round blank or ring

Although diverse, available stocks of bars and tubes are not always sufficient. Often, the customer may require special alloys or dimensions, for example, or surfaces that are rolled or machined flat. Here, too, we are able to manufacture a single part or a whole series, at diameters of up to 98.4 inches.



Round blank and ring from FORMODAL®023



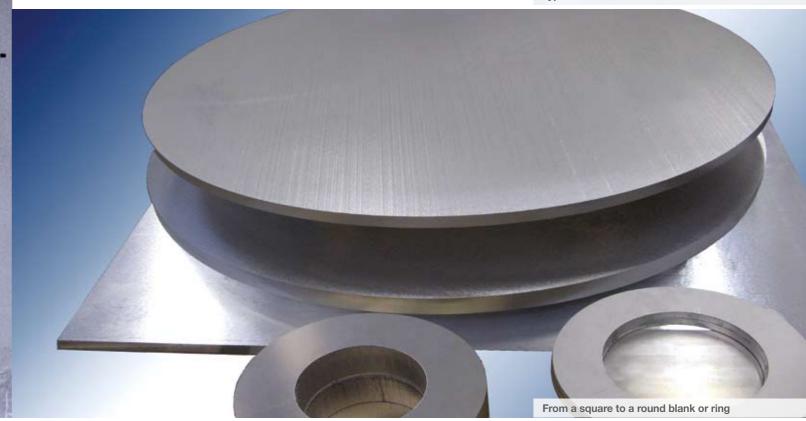
Copper round blank



Almost any dimensions are possible



Typical tolerance: +.125/-0 inch



## **ALUMINUM BARS**

Whether bars, tubes or sections, drawn and pressed aluminum products are warehoused and processed in Factory I. In no time at all the material is ready for shipping.

## Perfect service, bar none: we supply to your exact requirements

At BIKAR, aluminum alloys are marked according to the globally standardized color coding system. Whether on-site or at the customer, this system means our staff does not waste time in identifying the material.

You can download color-code tables at www.bikarmetal.com.









Copper really gets electricity and liquids moving. At BIKAR, we don't limit ourselves to aluminum. We also stock and supply a range of heavy metals.

Copper in all its alloys and shapes



# What would the world be without copper?

Copper offers a truly diverse range of options. In addition to standards such as electrolytic or oxygen-free copper, BIKAR's portfolio also includes special copper alloys such as chrome copper zirconium, beryllium copper and tungsten copper.

The material known as "electrode copper", for sink erosion and welding, is kept in stock in all typical formats. And if you need a special format, then we can almost always find a solution.



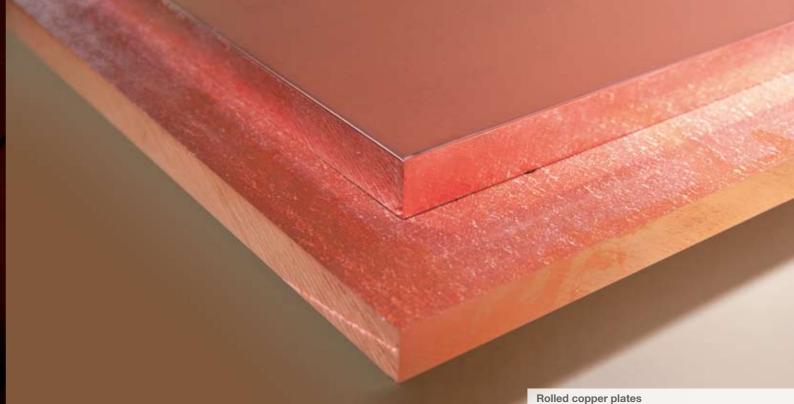
Copper tubes



Round copper bars



Flat copper bars



Extensive warehouse stocks of a wide variety of brass alloys ensure we stay flexible. We don't simply stock the standards such as Cu Zn37 or Cu Zn39 Pb. Our portfolio also extends to special alloys such as Cu Zn37 Mn3 Al2 Pb Si, Cu Zn35 Ni3 Mn2 Al Pb and many more – stocked as bars, sheets, plates, tubes and sections.

Brass rings, sawn to a standard size

## All that glitters is not gold

At BIKAR, this old proverb applies very well to brass. We maintain vast stocks of this material. Whether for the fittings or engineering sectors – whether for release orders or a small section for fabricating a hexagon bolt. Here, diversity is the key.

Whether you need round bars from 0.625 inches in diameter, brass tubes (round or rectangular) or heavy brass plate up to 7.8 inches thick, BIKAR delivers the dimensions you need quickly and precisely.



Rolled brass plates



**Brass sections** 



Hexagonal brass bars



## **BRONZE AND PLASTICS**

And BIKAR has yet another ace up its sleeve. Our complete portfolio also features bronze and plastics in all types and sizes.

Centrifugal and continuous cast bronze



# Bearing metals – ready to roll

#### Bronze:

BIKAR has many bronze alloys for a huge range of applications ready to supply straight from stock. Special-purpose bronzes such as lead bronzes, aluminum multi-alloy bronzes, copper-nickel bronzes and many more can all be offered, as can the more standard Rg-7 (gunmetal) and GBz 12 (cast bronze 12).

#### Plastics:

We have stocked plastics such as PA-6, POM, PMMA, PE or PTFE and laminated fabrics or papers for many years now. Our portfolio is rounded off by sheets, plates, bars, tubes and sections made from the same.

Automated bandsaw for bars



Bronze centrifugal-cast bushings



Bronze continuous-cast bushings



Continuous cast bronze



Plastics are available in different colours

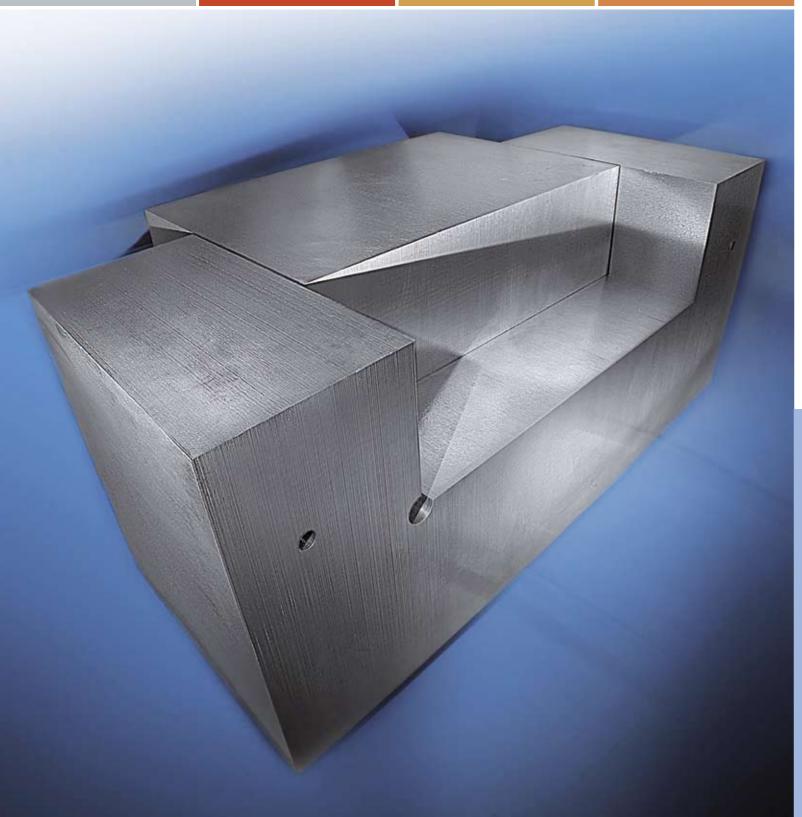


Plastics

## PARTS FROM DRAWINGS

Contour cuts – as shown in the photo below – save you both processing costs and manufacturing time. At BIKAR, we also design and produce lifting assemblies for heavy aluminum blocks

Contour cut with thread for lifting assembly



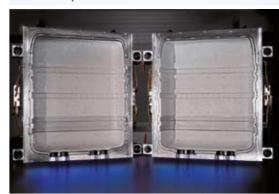
## One for all:

our expertise – your individuality

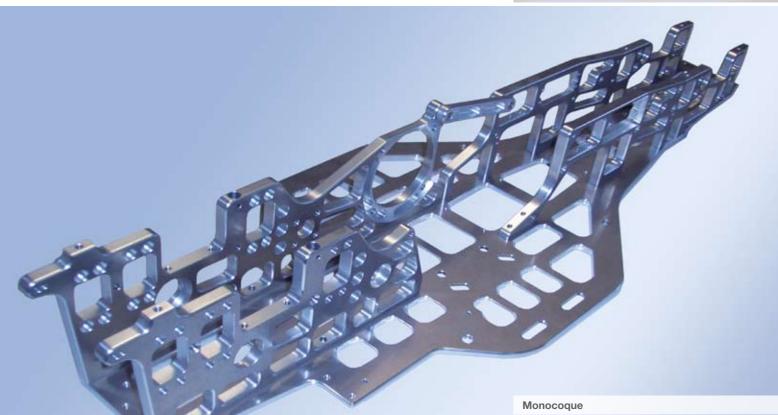
Are you suddenly facing a capacity bottleneck? The milling machine can't handle a part since it's simply too large? Or your well-earned holiday is around the corner and you no longer have the time to manufacture urgently-needed parts? Turn to the services provided by BIKAR, your reliable partner. Our pricing is both reasonable and pragmatic. Whatever the size, whatever the quantity.



Machined part from EN AW-7075



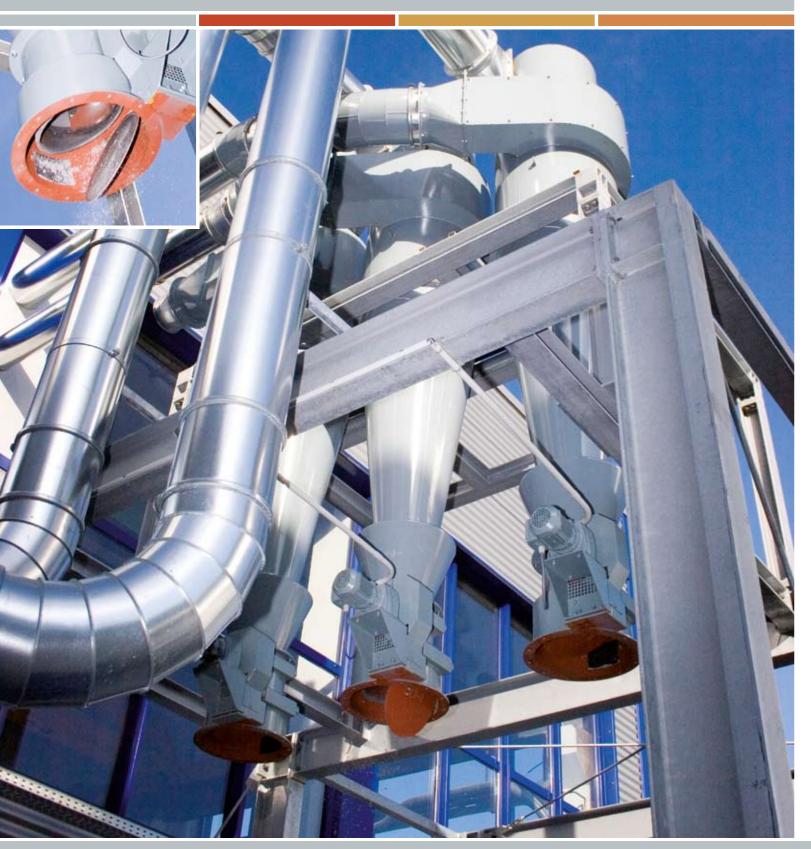
Blow mold from FORMODAL®023



# ENVIRONMENTAL PROTECTION AND OCCUPATIONAL SAFETY

"CLEAN and SAFE for the future." True to this philosophy, BIKAR follows a most stringent policy that exceeds applicable standards for environmental protection and occupational safety.

Vacuuming swar



## A responsible approach:

treating nature and the environment with respect

All of us use – and live from the use – of natural resources. Accordingly, we view it as our self-evident duty to act in an ecologically responsible way. Energy saving and waste recycling is a very important topic at BIKAR and is incorporated into all levels of the company, from the management down. We are long-time holders of both DIN EN ISO 14001 and 9001 certification – since we wish to protect our picturesque landscape for later generations to enjoy.



DIN EN ISO 9001:2008



DIN EN ISO 14001:2005



TÜV stamp transfer authorization



Pressed aluminum briquettes



Solid copper waste



Solid brass wast



4 WORLD OF METALS

## **PRODUCTION LOCATIONS**

Bad Berleburg Factory II: Rolled products Factory III: FORMODAL® production



#### BIKAR-METALLE GmbH Head Office Bad Berleburg

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#### BIKAR-METALLE GmbH • England

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### We're waiting for YOUR call!

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Korbußen (Thuringia)

Factory I: Warehouse for all types of NF metals
Factory II: Production of machined flat aluminum plates





## **WORLD OF METALS**

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