

## hydraulic and hybrid END FORMING MACHINES

amobgroup.com



#### AMOB GROUP

## OUR HISTORY SINCE 1960

In the 1950's, António Martins de Oliveira Barros began his career in a highly respected factory, surrounded by machines and tools. Soon, having worked in multiple departments of this factory, he rapidly developed skills that allowed him to assist owners of agricultural machinery within his community with technical expertise.

One such job required the use of a small, manual tube bender that was both impractical and difficult to use. This obstacle inspired Mr. Barros to redesign the machine and manufacture a better one.



Once finished, he was so proud of the result that he promised to himself that he would do another 10 machines just like the one he finished so he could offer them to small local companies that had similar needs. Without noticing António Martins de Oliveira Barros was in that moment setting the ground work of what would become AMOB, that after 60 years and already in its third management generation, continues to develop products with the same ideals in its DNA – simple products that are easy to use and intuitive operation.

Over the years, the space dedicated to its activity has grown to its current facilities, with around 40 000 m<sup>2</sup> of covered area equipped with the most update production equipment.

AMOB has progressively become the world's leading manufacturer of metalworking technologies, providing one of the biggest ranges of specialized equipment for the tube and pipe bending industry worldwide.

"One day I will have friends in the four corners of the world, friends that others tend to call customers"

Antonio Montine de Otivina Jams

AMOB Founder Since 1960

40 000 m<sup>2</sup> of **industrial areas** 

More than 60 years of experience 100% made in Portugal Over 200 employees

#### **AMOB GROUP**

## MAXIMUM PERFORMANCE AND HIGH RIGIDITY N PRODUCTION

Unlimited end forming intelligence!

Easy to operate and with a compact design, our AMOB end forming machines revolutionize any type of production. Capable of meeting the needs of any business, these versatile machines with high portability and small footprint are ideal for smaller workspaces. AMOB end forming machines can be hydraulic or hybrid. An hydraulic machine consists of hydraulically driven axes, as well as integrated

circuits for movement control. On the other hand, a hybrid end former combines hydraulic and electric control of axes.

These machines feature a high level of efficiency and eco-friendly technology thus reducing production costs. AMOB guarantees great results in any application thanks to its enormous design capacity and means of production available at its disposal. These machines offer the possibility of integration into a 100% automated cell,

tube orientation, loading, bending, drilling, end forming, threading, deburring, beveling, measurement and sorting of parts. All of this is possible with AMOB's customized integrated solutions.

Over the years, we have grown with the demands of our partners and with the general evolution of the market. There are numerous sectors and possibilities for using For this very reason, AMOB offers much more than just tube forming in our daily lives, all of which can be inspired autonomous machines, AMOB offers solutions for custom and improved by AMOB.



100% Customizable





**Automatic Lubrication** 



end forming. Our machines are designed to easily serve any new application or existing production line. From construction to automotive sectors, shipbuilding or even the chemical industry, all share a common need: end formed tube.



**Quick Tool Changing** 



# REVOLUTIONIZE YOUR PRODUCTION PROCESS

We are in the four corners of the world with more than 20,000 machines installed and we are able to revolutionize your production and your business! For each country, AMOB has a representative available to understand the customer's needs and able to provide assistance at any time.



## MBSERIES

**END FORMING CAPACITY** 

**MB 30** 

Up to 30mm

AMOB's MB range for end forming is capable of processing tubes **up to 250mm** outside diameter (OD), covering a wide range of industrial sectors. The main characteristic of these machines is the movement control through hydraulically driven axes which guarantee a good quality to the finished product.

Reduced cycle times and potential optimization of the MB series machines is achievable with the available forming stations. Versatile, and user-friendly solutions for forming different material types.

We can divide the MB series into 3 main subcategories: MB/1 with only 1 forming station, MB/2 with 2 forming stations and finally, MB/D which has 1 or 2 forming stations on each side. Whatever our partner need is, AMOB team is 100% available to advise the best solution according to each business case.

Up to 60mm

**MB 60** 

FIMOL

**MB 100** 

Up to 100mm

AMOB can guarantee results with maximum accuracy in any application due to its enormous projection capacity and its totally vertical production system meaning that from design and conception of the machines to their manufacture and assembly everything is done in-house.

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**MB/1 and MB/2** With a user-friendly touch screen, these tube end forming machines with 1 or 2 stations are driven by servo controlled axes and allow the creation of programs to use their available stations. These machines exhibit a more rigid construction ensuring precision and repeatability. The ideal solution for the simplest applications.

**MB D** The main feature of this model is the simultaneous end forming on both ends of the tube. This is only possible due to the existence of forming stations placed on each side of the tube. Driven by servo-controlled axes, MB D makes it possible to adjust the distance between stations according to the tube length. It also has a touch screen with storage of positions and programs.

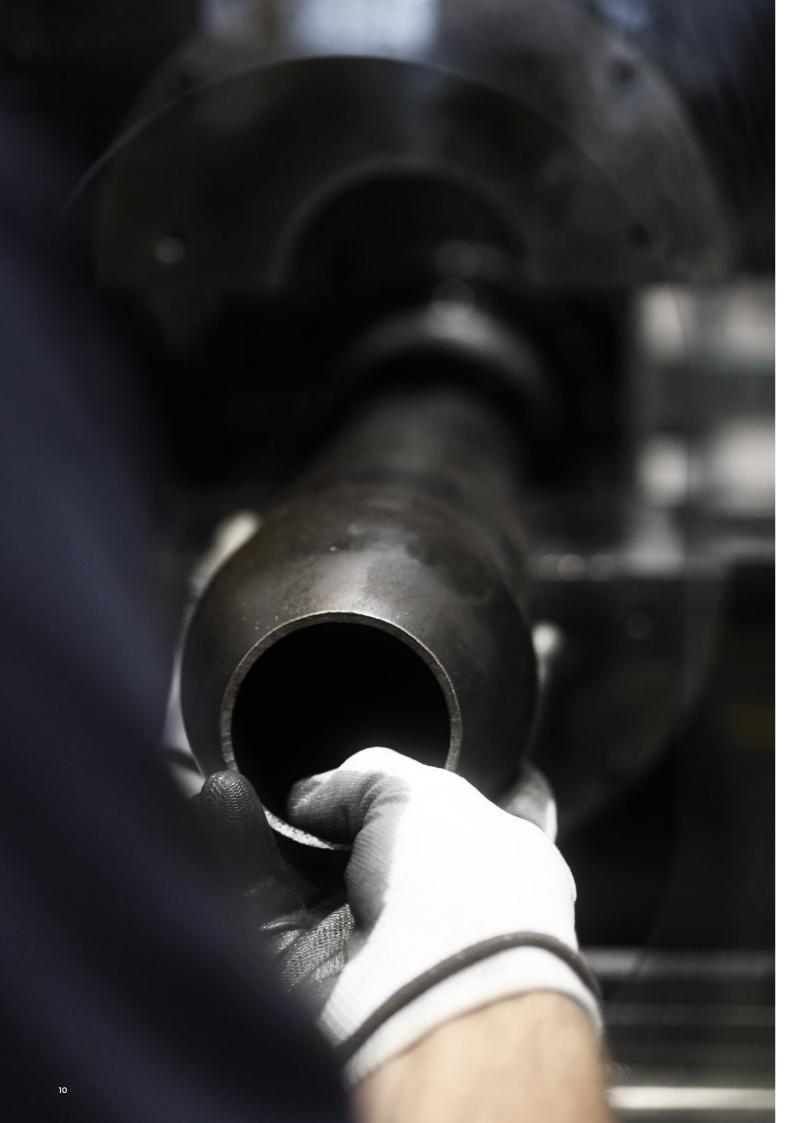


# UNLIMITED END FORMING POWER



**MB 200** Up to 200mm





## MBSERIES

Lighting company strengthens its manufacturing system with an MB 200/2 tube end forming machine!

Tecnopali North Europe SIA, located in Daugmale, Latvia, produces a wide range of products for street lighting, decorative lighting, stadiums and area lighting, power supply and also produces customized solutions for lighting and steel constructions.

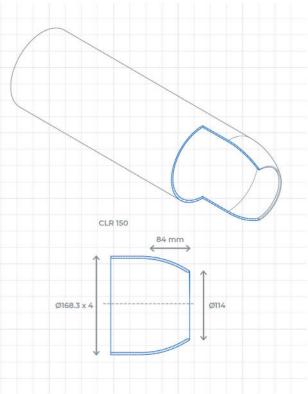
"We can provide our customers with a full range of services in the field of professional lighting and power supply network construction." indicates Aivars Neimanis, board member of Tecnopali North Europe SIA.

The favorable market development combined with flexible production and high quality standards have resulted in a constant pursuit for improvement and optimization of production. The commercial relationship and trust between AMOB group and Tecnopali already has some history, since this is already the second tube end forming machine acquired within 2 years by this world leader in lighting.

"We have great confidence in AMOB's experience and its excellent professionals! We know that these machines will help the extension to new markets." says Aivars Neimanis, board member of Tecnopali North Europe SIA.

The MB 200/2 is capable of processing tubes up to 200 mm outside diameter. With a very intuitive touch screen, this tube end forming machine with 2 stations is driven via servo controlled axes and allows the creation of programs to use the two available stations.

Both end forming machines have been successfully installed in Latvia, a customized solution produced according to Tecnopali's needs.





## **MB SERIES**

## TECHNICAL CHARACTERISTICS

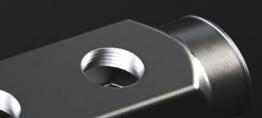
	MB 30	MB 60	MB 100	MB 150	MB 200	MB 250
Maximum Capacity (steel - 450 N/mm²) (mm)	30 x 2	60 x 2,5	100 x 5	150 x 6	200 x 6	250 x 6
Stroke length (mm)	170	170	215	240	240	250
Forming force (ton)	8,5	10,5	25	30	36	50
Maximum number of stations	2	2	2	2	2	2





## SOLUTIONS WITH A VI SION OF THE FUTURE

Our team works hard to satisfy the requirements that we receive every day from our partners and they make the impossible happen! All projects are motivating since they promote the pursuit for new solutions, new concepts and even new manufacturing methods.



**END FORMING CAPACITY** 

MB 30 H

Up to 30mm

## MBH SERIES

AMOB'S MB H range for forming is capable of processing tubes **up to 250mm** outside diameter (OD), covering a wide range of industrial sectors. The main characteristic of these machines is the hybrid movement control. This means that there's a combination of hydraulic and electrical axes.

Produced by default with three automatic forming stations, these machines also have the possibility of being equipped with additional stations and rotary stations for forming and machining. Additionally these range can incorporate a punching station.

O AMOB

MB 100 H

Up to 100mm

Machines with greater versatility for the execution of the most complex end-forming jobs. This perfect combination allows servo-controlled hydraulic forming, greater precision due to its electrical exchange of stations and rotary tools with up to 2 axes for applications such as threading or deburring.

MB 60 H

Up to 60mm

The total productive autonomy of AMOB group provides increased flexibility when it comes to customizing products for our partners, everything is possible, from simple stations, rotary stations or even a combination of these two types.

In AMOB you will find a highly specialized team, able to produce a solution according to your business needs.

# AN ECOLOGICAL AND EFFICIENT TECHNOLOGY









#### The most intuitive software on the market. Easy to operate and smart!

With a simple and intuitive software, any user is able to program and operate the MB H series. This range has been designed to simplify and optimize the entire production process. To maximize the machines' potential, the software on these end forming machines allows the storage of tools, programs and load positions, and also facilitates the selection of backward positioning allowing for a reduced cycle time.

All MB H machines from AMOB can be equipped with horizontal/ vertical clamps according to the application, and are equipped with automatic lubrication, which represents a reduction of tool wear as well as perfection of the parts produced during the work cycle.







**MB 250 H** Up to 250mm

## CEL WITHeMOB32LR + MB60H

#### Increase your productivity with our fully automated cells!

Robotic arm With the help of our team you can equip your business The fact that we achieve continuous reproduction, high reduced automatic cycle times and consistency in results. with the latest technology, by combining AMOB machines Intelligent automation Our innovative range of end forming machines was born repeatability, with reduced material waste are some with a robot capable of taking on various types of jobs of its many advantages. The final product is finished to face the increasing complexity of the applications and operating in more compact spaces, this technology within a few seconds, ready to ship, and with maximum required by our customers, as well as the concern with provides a reduction in production time and a decrease precision in its finishes. With their compact design increasing production costs and the need to reduce in the requirement for specialized operators. In addition, and small footprint, the MB H series machines are fully consumption intelligently. With this solution it is possible the integrations are capable of revolutionizing any prepared to be integrated into production cells, these to optimize productivity rates by integrating different production process! fully hybrid machines guarantee high production, forming processes in a single piece of equipment. MB 60 H End forming machine eMOB 32 LR Tube bending machine ямов 111.1.1 O AMOB AMOB MBGOH

# THE PERFECT SYMBIOSIS





## MBHSERIES

The MB 100/2 tube end forming machine has translated into faster production at Fisola company.

Fisola, located in Aveiro, Portugal, is an engineering and metalworking company, specialized in the manufacture, design and development of projects and products in the areas of energy, telecommunications, street lighting and railroads.

With an impactful contribution to the production system of this organization, the MB 100/2 with two forming stations, is capable of processing tubes up to 100 mm of outside diameter. There were several advantages that Fisola obtained with the acquisition of this end forming machine driven by servo controlled axes, among them we can highlight the increased speed of manufacturing of public lighting columns and more importantly the increase of quality in the final product.

With a specialized team and the latest technology, AMOB seeks to respond to the needs and challenges presented by partners from the four corners of the world. "AMOB proved to be the right partner, given the experience of its professionals, for the engineering capacity demonstrated and also for the quality of the final products. We felt confident that in the end of the project, the result would be the intended one". States Tiago Silva, Fisola's General Director.

With over 60 years of history and presence in the market, AMOB is constantly looking for opportunities, exploring new concepts and solutions, thus contributing to the modernization of the industry and our planet, cooperating in a more conscious, more sustainable, and especially more AMOB future.

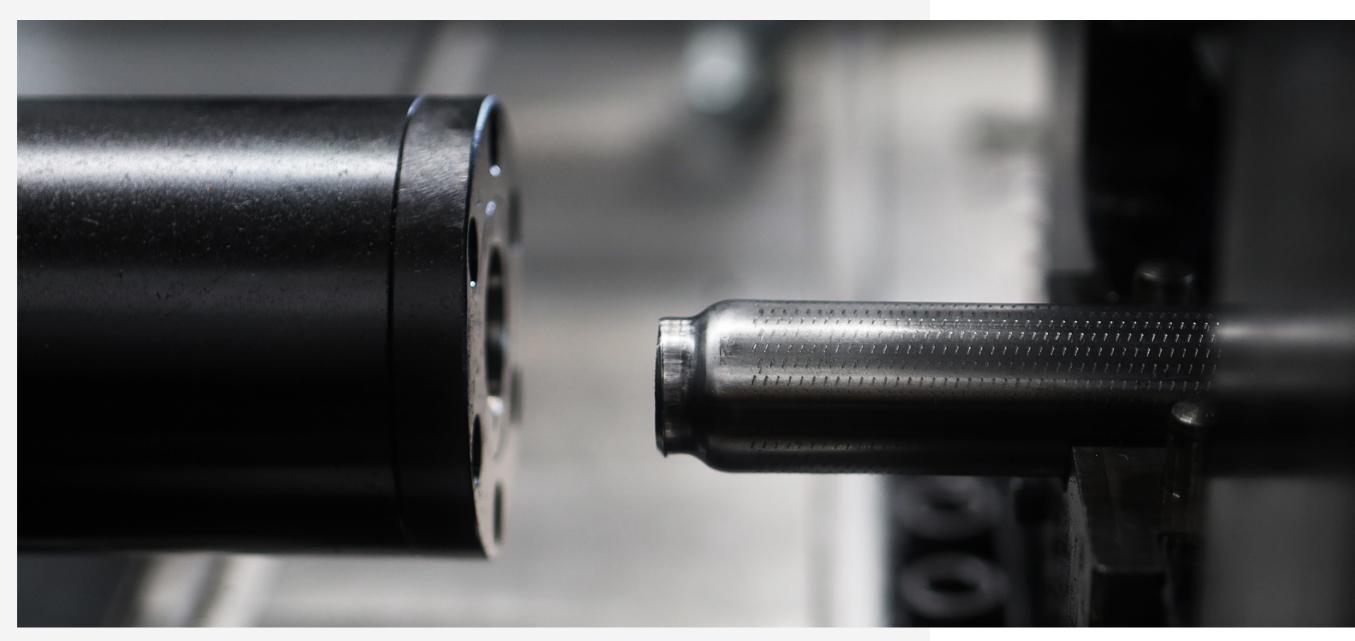




#### **MB H SERIES**

## TECHNICAL CHARACTERISTICS

	MB 30 H	MB 60 H	MB 100 H	MB 150 H	MB 200 H	MB 250 H
Maximum capacity (steel - 450 N/mm²) (mm)	30 x 2	60 x 2,5	100 x 5	150 x 6	200 x 6	250 x 6
Stroke length (mm)	170	170	250	450	550	550
Forming force (ton)	13	13	25	33	36	50
Maximum number of stations	4 (endforming) + 2 (rotative)	4 (endforr + 2 (rotativ				



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## **AMOB SECTORS**

## TUBE APPLICATIONS



High performance combined with a constant commitment to innovation!

There are countless sectors that work with formed tube in their daily activities! AMOB studies each application and presents the best solution for each customer and respective sector.

Construction, furniture, automotive sector, aerospace and heating systems are some of the industries that take advantage of our tube end forming machines. We guarantee accurate results, state-of-the-art technology and user-friendly equipment. High precision and quality work, passed on from generation to generation, is a true heritage and an unavoidable differentiation factor, our machines meet these standards required by the various sectors of activity.

The relationship and commitment with our customers has never been more important, since the exchange of experiences leads to innovation and the constant development of new solutions for the various industries. Today, industries are looking for efficient and sustainable results, with machines that really contribute to maximize

productivity. Every day, our team seeks to strengthen its stable position in the market, we are and we want to continue to be a company with the best and most innovative solutions. AMOB develops, designs, markets, produces and provides technical assistance.



#### LET'S KEEP IN TOUCH

## OUR SERVICES

## TOOLING

Our in-house tooling design and manufacture team deals with any application that requires forming, bending or pressing! This allows us to achieve reduced delivery times and most importantly a turnkey service. We have full control over the process! 100% designed and produced by AMOB.



#### **SPARE PARTS**

Our parts for the whole world in a short period of time! AMOB has in stock more than 20 000 parts references for our customers' daily orders, from mechanical (bearings to gear boxes through electronics or even pneumatics... All of this, ready to be shipped in 24 hours time-frame and maximizing your machines availability.



## **REMOTE SUPPORT**

Get in Touch! We are in every corner of the world with AMOB Service Center. Our team not only understand your needs but they can also anticipate them. They are in close contact with factory support team, to quickly resolve any software issue and minimize your production downtime.

## amobgroup.com #TEAMAMOB





## FORMING TECHNOLOGY SOLUTIONS

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