

The tube **processing** technology



BLM GROUP

LASERTUBE
BENDING
SAWING AND END MACHINING
ENDFORMING
SOFTWARE

WWW.BLMGROUP.COM

Technology that **moves** you forward.

Ours is a history of technology, passion and service. For over 60 years we have produced tube fabrication equipment (laser cutting, bending, endforming, sawing and end machining), combining both experience and innovation, to produce efficient and easy to use machines of the highest “Made in Italy” quality.

 Cantù / Italy



BLM SPA
Bending and
endforming systems
190 employees

 Levico Terme / Italy



ADIGE SPA
Tube laser cutting
systems and cold saws
180 employees

ADIGE-SYS SPA
Combined tube and sheet
laser cutting systems and
end machining systems
90 employees

570+

employees worldwide



Help is never
far away.

Talk to the BLM GROUP sales network

If you have questions of how to make your tube fabrication more efficient you will always find an expert who can speak your language and answer your questions.



Speak with BLM GROUP service network

With one phone call you can reach the BLM Group's team of service and tech support experts who will answer your questions and resolve your problems.



Worldwide Network

Locate your local BLM subsidiary or agent to receive personalized service from factory trained technicians.



Innovate to create value.

The concept of innovation isn't limited to just new products or optimized technologies. It is most valuable when the innovation provides the user with the means to improve the efficiency and effectiveness of their own production processes.

Quality components, good equipment is assembled from quality components that have proven reliability and are readily available worldwide.

Ecosustainability, thanks to innovative electrical designs and the savings of fiber lasers our machines are clean, quiet, and energy efficient.

Ease of use, new users are able to quickly become familiar with machine operation. A step by step guide is available on the machine assist operators.

Integration of systems into a single process. Machines are designed to automatically compensate for the variations in tube and the changes that occur to parts during processing.

Control of the entire process, use your computer or smart phone to monitor production in real time.

Commitment to result, our extensive understanding of feasibility, cycle times and tolerances is how we earn the trust to be a partner you can rely on.

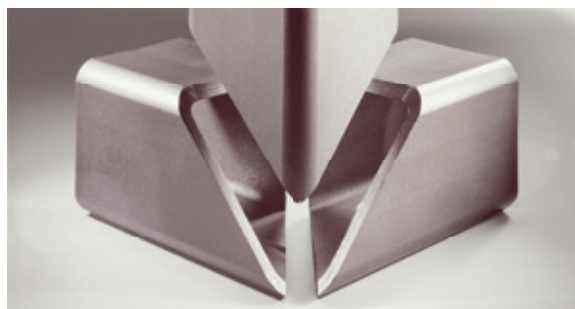


Lasertube

This flexible cutting tool offers new capabilities and unlimited opportunities.

It can do what you previously only imagined

Laser can cut any feature size or shape in all different shaped tubes. This provides new design freedoms to create products that were previously unthinkable. The efficiency and flexibility of laser tube cutting expands design freedoms to develop new, high quality, products all while reducing 'time to market'.



It is also efficient with the production lot size = 1

Traditional fixed tooling costs for punches, drills, clamps, jigs and fixtures are eliminated. Now go from 3D CAD program straight to finished part because the laser beam is the universal tool.

It is able to achieve piece part cost reductions up to 70%-80%

Speed up assembly by using 'tab and slot' joints. Reduce part count via 'bend and fold' designs. Obtain tighter working tolerances and precise part fitment.

Consolidate manual fabrication steps; saw, drill, mill, grind with one automated process, laser tube cutting.



Years of experience and thousands applications allow us to offer the most suitable laser tube solution to each individual need. By understanding which capabilities that you need, we can offer you the choice of one of our 15 products will best fit your needs.

From 12 to 610 mm diameter (.5" to 24")

From tubes to open profiles > an "all road" laser tube.

The maximum tube size and its shape (round, square, rectangle, etc.) are two elements that determine which model is best. Many of the machines are designed to process special shaped tubes, plus concave profiles and open shapes (angle iron, I-beam, flat bar).

For both tube and sheet metal

Combination machines that laser both tube and sheet are the perfect solution when, for space or production volume reasons, two separate machines cannot be justified.

A single laser source and cutting head can automatically change from sheet to tube cutting without the need of a tooling changeover.

Cutting geometries without limits: 2D or 3D

Sometimes you may have the need for non-orthogonal (tilt) cutting. This may be particularly important certain weld preps or when the cut parts are to be brazed or tig welded to tight tolerance. It is also useful when cutting 3D assemblies, hydro formed parts or bent tubes. 5 Axis

cutting give you're the freedom of motion you need to make your difficult parts.

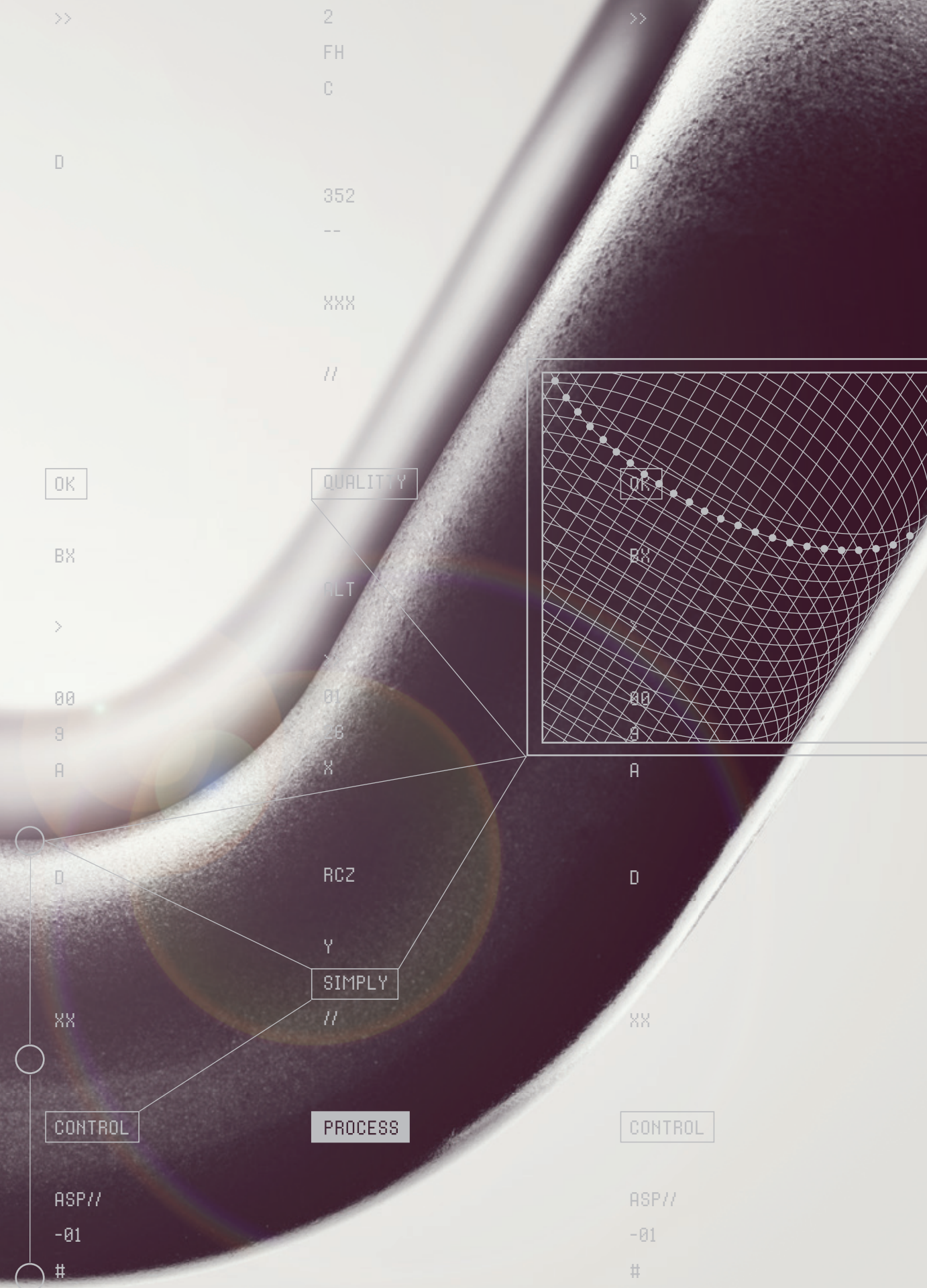
CO₂ or Fiber: take your pick!

A fiber laser source provides a number of benefits when compared to traditional CO₂ resonators.

- significantly lower electrical power consumption
- no mechanical parts that are subject to wear, and therefore a sharp reduction of scheduled periodic maintenance
- greater cutting efficiency due to the shorter wavelength of the laser beam
- cutting highly reflective materials such as brass, copper, aluminum and titanium



Tube bending



Tubes can be bent using different techniques depending on the part requirements. To determine which of our products best suits your bending needs you need to determine;

- **bending direction, right, left or both**
- **fixed or variable radius**
- **single or multiple radii**

All of our tube benders feature the benefits of easy to use “**all-electric**” technology.



Minimum set-up time

High repeatability and accuracy.

The precise control and positioning of all the electric axis guarantee the optimum parameters can be produced exactly, right-first-time and every-time. Changeover times are dramatically reduced and operator set up skills are minimized because the machine automatically manages the critical setting for clamps, pressure die, mandrel position and retraction, center line radius, etc..

Drastically reduced maintenance

requirements due to the elimination of hydraulic components.

Eco-friendly: Noise level less than 70dB(A), complete absence of hydraulic oils, minimal electrical power consumption.

Tele-diagnostic service support available via internet connection.

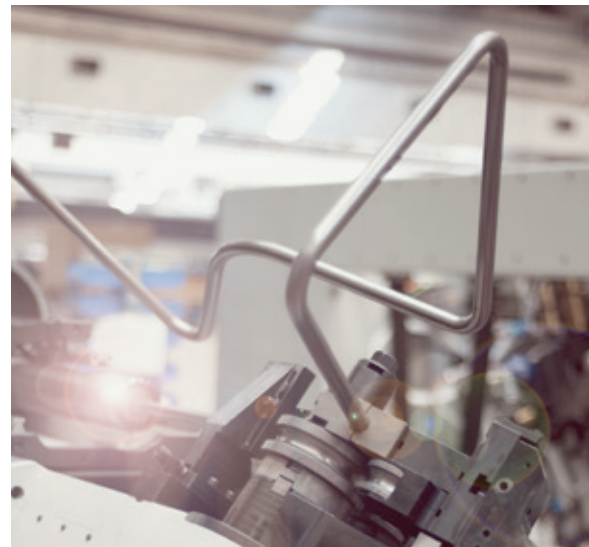
Tubing, as a raw material, comes with a host of imperfections (dimensional tolerances, chemical composition variations, etc.) that causes it to react differently when bending. This often results in creating bends that are out of specification for tolerance, repeatability or quality.

BLM has taken our years of expertise and knowledge to provide a CNC control that has the tools to deal with these variables and to provide the features needed for a wide variety of industries.

Right the first time

Thanks to a powerful algorithm our benders can compensate for tube spring back and elongation. The operator creates a program straight from the print dimensions. It can be for either fixed or variable radius bending.

The machine then safely and automatically generates the corrected executable program by looking at the previous bending experience in its database and applying the corrections needed to ensure that the first piece is right. This eliminates the wasteful 'trial and error' adjustments traditionally needed to produce the desired result.



Complete production process

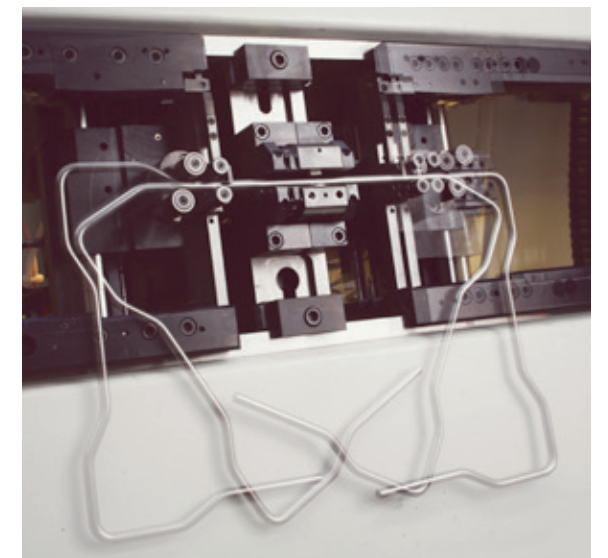
The integration of the tube bender with other equipment can create an automated system that optimizes the production process; simplifies part handling, eliminates intermediate steps, reduces part production time and eliminates the need for additional equipment. These systems can feature;

- automatic loading and unloading systems
- laser cutting or drilling
- endforming systems that create flanges, countersinks, tapers, combining rolling, deburring and trimming.

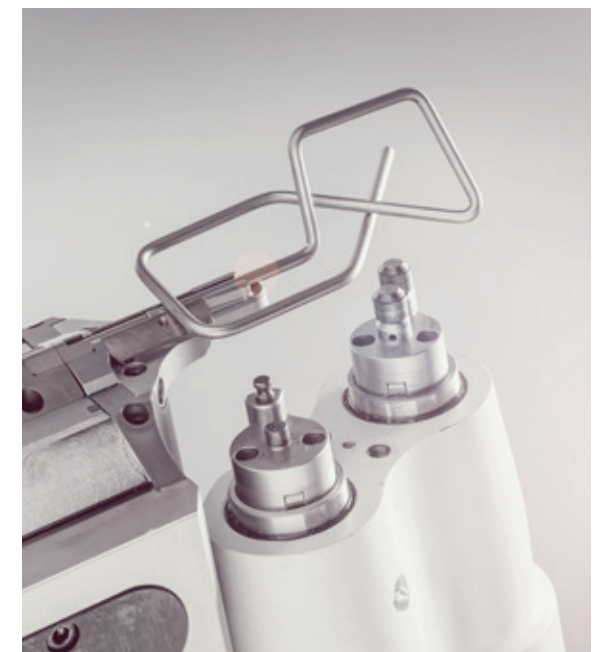


Wire bending

Wire bending requirements can require either single head or dual head solutions. The double-head solution allows the doubling of productivity on symmetrical parts, improved flatness of the finished parts and high repeatability even on bulky parts.

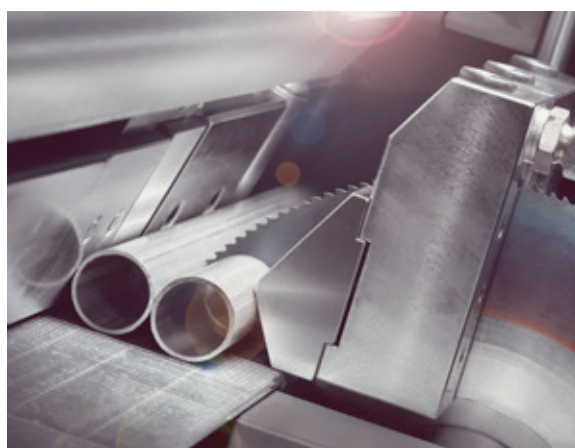


Alternatively the single-head solution offers greater freedom of bending techniques (compression / kick / variable radius bending, etc...) that can be applied to a part.

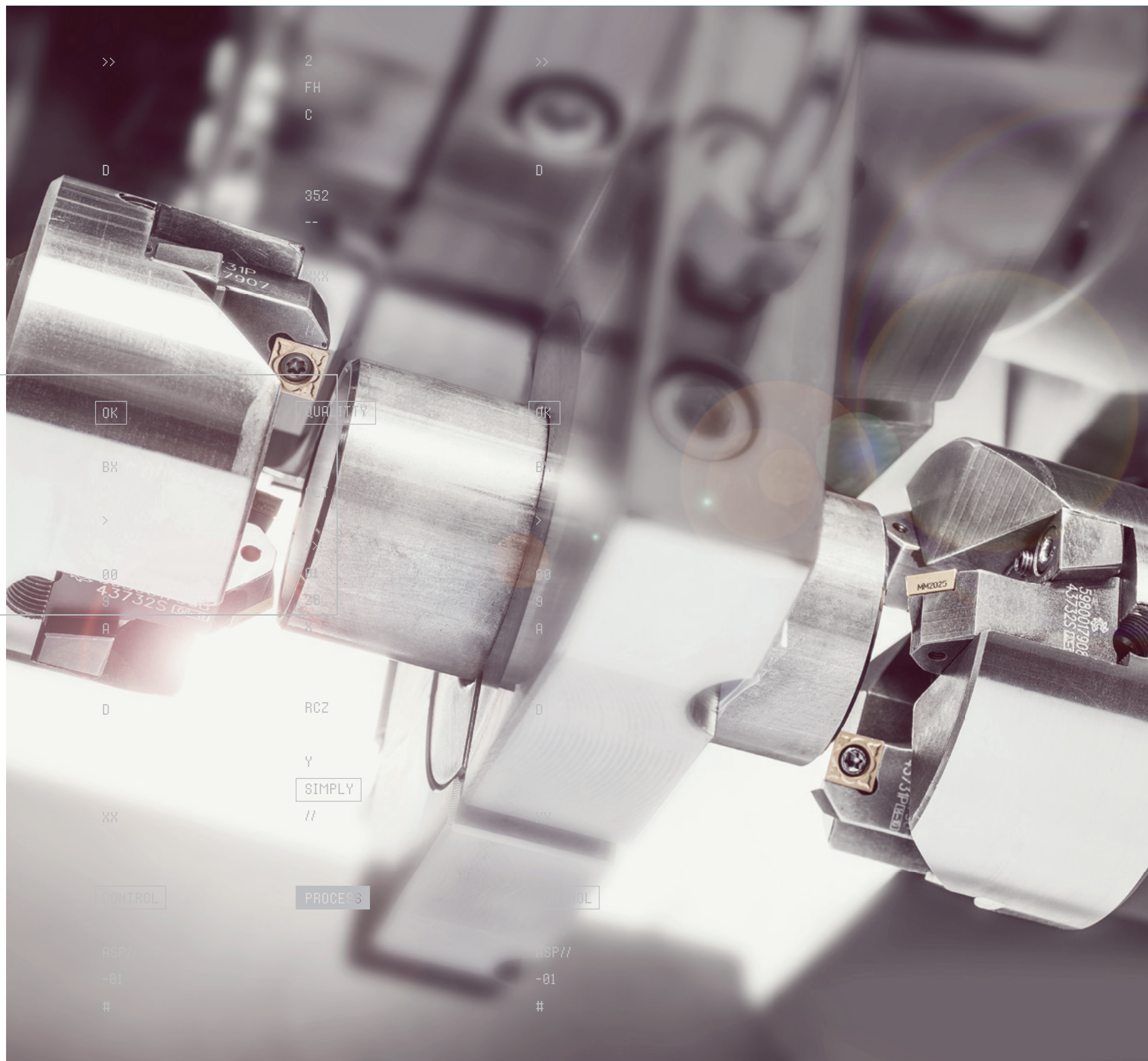


End finishing and cutting

Our integrated cutting systems can automatically process tubes or solid bar providing parts that are sawed from a bar, brush deburred, washed, dried, measured collected and even palletized.



But not only that: we can also integrate all necessary machining operations to automatically chamfer, face, turn, thread, and axial or and radial drill a part.



All-In-One tube technology

BLM GROUP understands tube manufacturing technology and knows how to integrate compensation (elongation, spring back, radial growth, etc.) to automatically correct and insure that the part will meet its final geometric tolerance.

We are a single source for the management of all the phases of the entire tube fabrication process: **laser cutting of straight tube > bending of laser cut tubes > laser cutting of bent tube.**



Laser cutting of straight tube



Bending of laser cut tubes



Laser cutting of bent tube

From design to production in one click



Software is the core element around which we have built an efficient and effective real time production process.

BLMelements is the single point on which we integrate all of our capabilities:

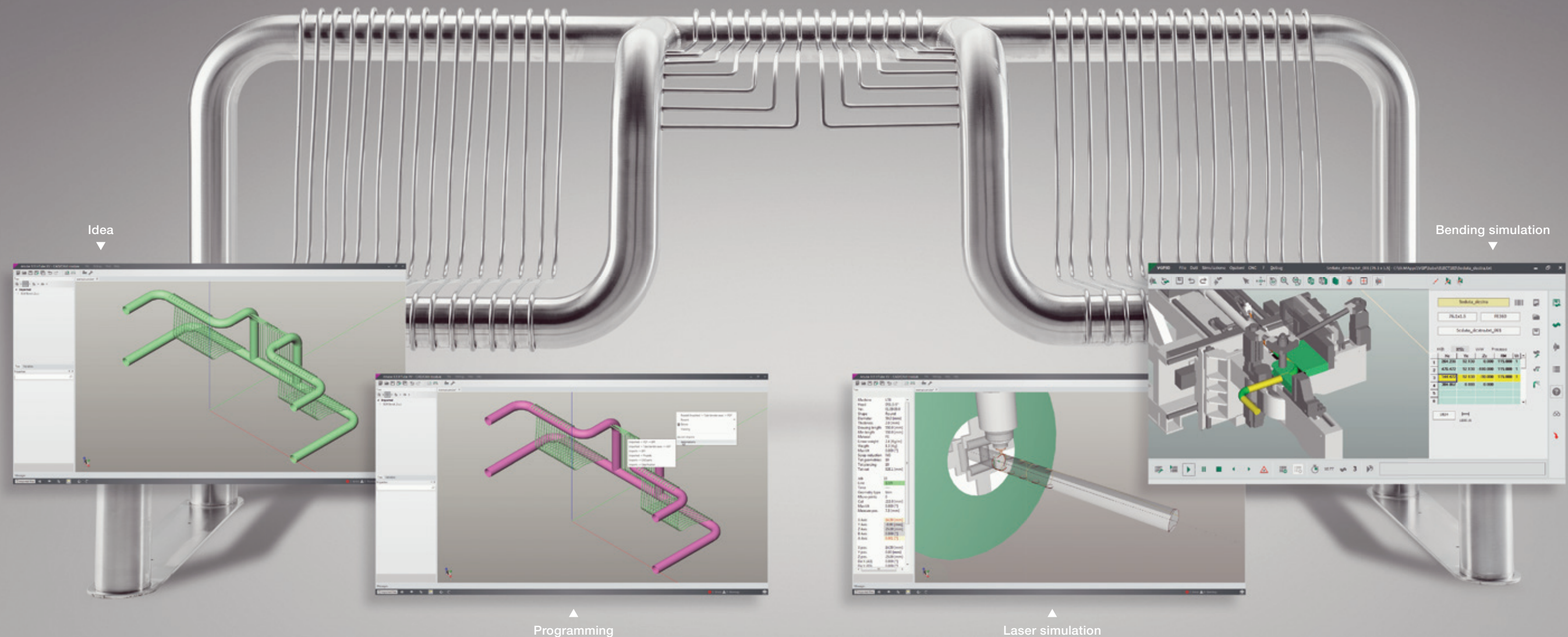
- it is a completely new CAD/CAM environment that



is able to not only to program a single machine but to manage multiple technologies (laser cutting, bending, sawing)

- it has an accurate simulation environment for quoting and production planning.

- it provides a real time production-scheduling / monitoring environment for all machine types , that runs on mobile devices (smartphones and others) and that allows you to have an eye on the progress and efficiency of the whole process.





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