Evolving to keep abreast of the times

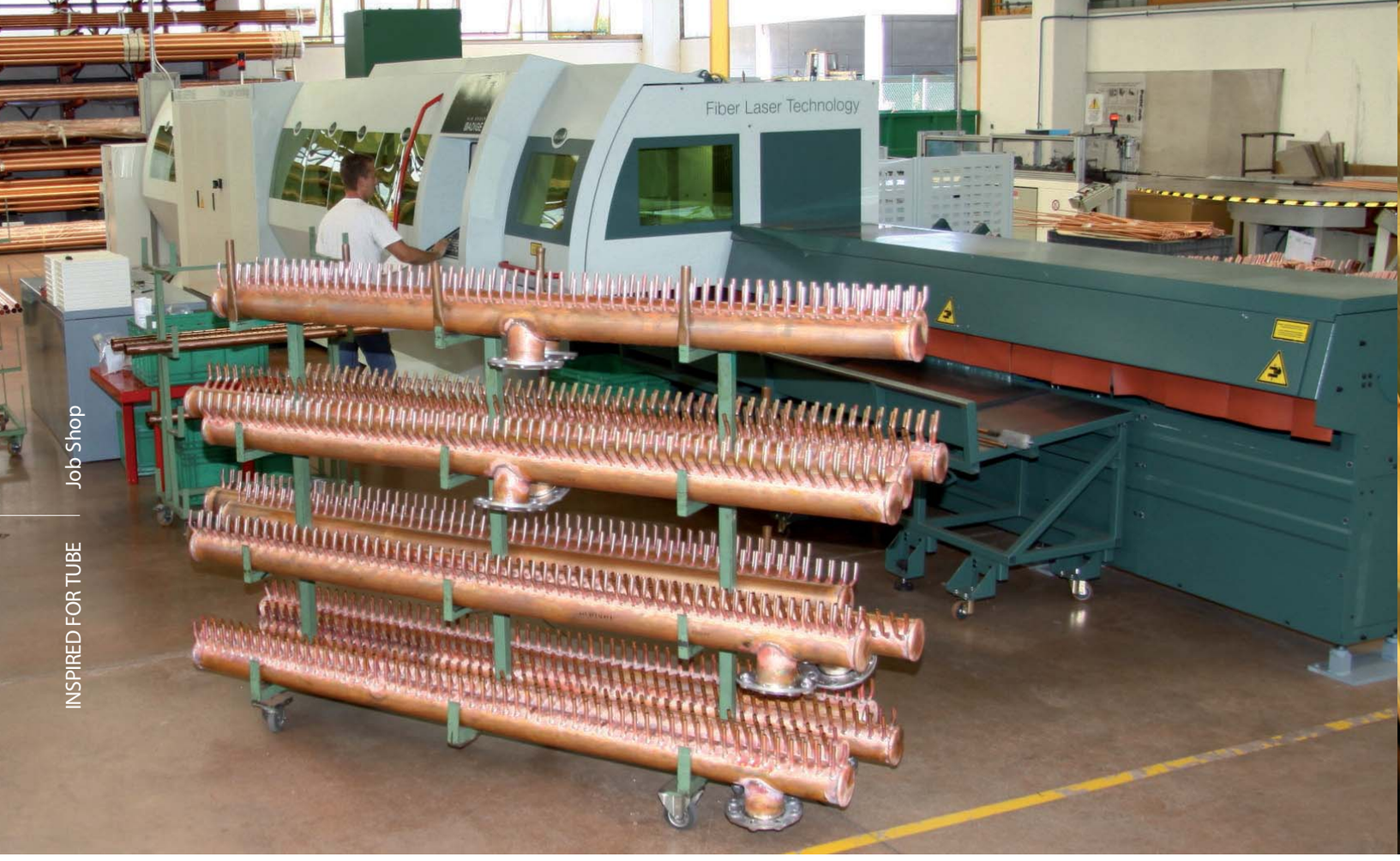
BCF, Italy, is specialised in processing copper tubes with traditional and all-electric bending machines and has recently introduced the fibre laser technology

BCF, a Friulian job processing company is specialised in processing copper tubes for the production of coils, headers, assembled units and, more generally, components for the conditioning, refrigerating, heating, heat exchanger and air treatment industries.

Sergio Burato and Emilio Sangoi, owners, founded the company back in 1995 with another partner. "We started business here in Rivignano in rented property - explains Burato – then in 1997, we built the first of our own buildings, in 2001 the second and in 2005 we added a third, which is now being fitted out and will be used to process aluminium".
Relations with BLM started immediately already back in 1995 with the purchase of the first tube bending machines for small diameter tubes used for domestic conditioning. Core bending was not required and the BLM PLAUNO and PLANET systems guaranteed a suitable quality for the application. Since then, the relationship with BLM has become very sound to the point that the BCF workshop could easily be used as a showroom given the number of BLM machines installed.

Innovating and differentiating

Since 2000 there are only 2 partners, Burato, who is responsible for production and sales and Emilio Sangoi who is responsible for the administration. The company has a head count of 110 employees and Mr. Burato talks with satisfaction about the pleasant internal relationship between the employees and management. "I'm always in the company" he explains "and if anyone needs to speak to me for any reason, they can always stop me even in the corridor" and continues "even if this type of relationship is increasingly more challenging as the company grows".
When speaking about BCF he describes it as a service company, then goes on to explain, "a service company that aims at quality, which is understood as satisfying the customer's expectations, of course, within the limits of the resources that we have. We operate throughout



Europe and even, to a small extent, outside Europe. To find outlets abroad has been one of the goals of the sales network since the beginning. It is important to differentiate both in terms of customers and territories. Moreover, it is important to invest in innovation and technology; the margins on these products are limited, therefore we try to focus our efforts on the products we have.

> With BLM we have found a partner who pays attention to innovation and who invests in research, keeping abreast of technology. The technological evolution is more than clear and is very important for a company who wants to stay on the market.

Over the years, the company has experienced various moments of rapid and dramatic changes. As already mentioned, initially the company followed the domestic conditioning market, but that type of production literally disappeared overnight in Europe and moved towards the emerging countries such as China most of all. The company therefore reacted by investing and purchasing different machines to penetrate other spin-off sectors such as industrial conditioning, aiming at larger diameter tubes with high-tech reliable products. "It was necessary to adapt to the new market requirements, explains Burato – for larger diameter tubes and bigger machines that bend with core. BLM was ready with systems like E_turn and RH/LH all-electric tube bending machines with automatic loading system".

"The step taken from the hydraulic machine to the all-electric system was important both from the performance viewpoint, that is higher accuracy and reliability in the bend and from a practical elimination of the hydraulic oil with all the problems that came along with it".

Flexibility at all levels

2009 was a difficult year worldwide, but BCF came through without exploiting payoff supplement funds, which meant that the employees were kept on and ready to resume production immediately as of January this year. Now BCF is looking at recruiting new staff even if the market has once again radically changed. "We are now talking about reducing the batch

TECHNOLOGY

LT Fiber

Application of fibre laser sources to the metal laser cutting system has brought about various new elements. The higher performances mostly relate to speed on smaller thicknesses, reductions in the consumption of electricity, lower maintenance costs, wider field of laser cutting applications to include high-reflecting material. The latter in particular is particularly important thanks to the extended outlets possible on the laser cutting market in the copper tube industry. In fact, as to the tube processing field, the copper tube sector has taken a considerable market share, which until a little while ago had been practically excluded from the possibility of applying the laser technology.

To take the step from traditional tube processing to the application of the laser technology means that various processes are eliminated from the various machines that had downtimes and transfer times between the stations and a higher possibility of errors in the multiple operations to process the tube. The reduction in the overall production cost of the pieces in most cases is surprising.

LT Fibre: examples of workable materials

Material	Thickness
Stainless steel	5 mm
Steel	8 mm
Aluminium	6 mm
Brass	5 mm
Copper	3 mm

volumes that are required even quicker" says Burato. "The solution is to continue investing in technologically avant-garde machinery that is able to provide automation and mostly flexibility in meeting the customers delivery requirements".

The new fibre laser system has recently been introduced in this renewal towards a greater flexibility. The Lasertube LT Fiber with 2 kW fibre laser source has made it possible to apply the laser technology in copper tube processing with a considerable advantage as regards decisively shorter processing times.

> "Before – says Burato – with traditional machinery holes were made that then needed to be burred; now programs are created in the technical office and they are sent directly to the LT Fibre.

The automation is also important; to avoid possible operator errors, the LT Fibre system is equipped with a camera that checks that the material section actually corresponds to what is indicated in the work program, thereby preventing damage and waste.

BLM GROUP
Challenging the limits of tube technology.

50

1960 Founding of BLM

Mr. Pietro Colombo sets up a company, taking over a small business that manufactures tube bending machines. The new company continues with name of the original company, BLM (an acronym of the founders).

1961 I° Automatic bending

BLM implements the first electro-hydraulic tube bending system to perform core tube bending in an automatic cycle. The machine has a manual angle programmer. The B40, B25 and B90 systems are produced in the decade from 1961 to 1971.

1964 Move

BLM builds a facility in via Selvaregina (which at the time was nothing but a thick forest with a small road the size of a trail running through it) and moves there at the end of '64.

1964 Automatic saw

Adige builds the ADIGE CICLOMAC that operates in a completely automatic mode, loading bars with a diameter of up to 70 mm

1965 The market expands

BLM starts to exhibit at national fairs in Messina, Palermo, Triest and Bari, and then also abroad. From 1966 to 1969 BLMs export turnover soars from 50,000,000 to 120,000,000 of the old Italian currency (Lire). Export countries are mainly Mexico, Brazil, Venezuela, Iran and Saudi Arabia while Germany, France and the UK are among the leading markets for BLMs continental exports.

1966 1967 The Trento floods

The flood in Trento destroys the Adige facilities, but luckily drawings and accounting documents were recovered. In the year to follow, with a headcount of 100 employees, Adige moves to an 11,000 m2 area in Levico to meet the growing needs.

Raccorderie Metalliche S.p.A. is national and international leader in the production of fittings distributed mostly in the thermohydraulic field but with the recent development of the press-in systems, the so-called pressfittings, application can also be found in other sectors such as oenology, gas, compressed air and industry in general. With its 5,000 articles, Raccorderie Metalliche S.p.A. is one of the European producers that offer the most complete range.

We are a **big** country, let's not forget it

The choice of suppliers made by Raccorderie Metalliche is based on an unequivocal standard: absolute excellence. Only in this way can it guarantee continuous commercial success, year after year. The BLM Group is one of these suppliers and it is thanks to the close relationship that we had the honour to meet and interview Pier Luigi Ceccardi, President of Raccorderie Metalliche S.p.A. and President of Federmeccanica (the Italian metal and mechanical workers trade union Federation); a fine entrepreneurial figure in our Country as confirmed by the numerous positions covered and honours received.

Perhaps it's a trivial question, but we like stories. What is the entrepreneurial course that leads to these achievements?
The Pier Luigi Ceccardi entrepreneur came about quite by chance. I studied at Rovereto and graduated with excellent marks that ensured a call from the Edison Group. I didn't have any help; I came from a very poor family that I am proud of. It goes without saying that at the age of 19 I was recruited by Edison and was lucky to have worked for the various companies of the Group located all over Italy. Therefore, I gained considerable and varied experience in a wide range of fields, from Pavesini, Fidenza Vetraria, Silva in Villa D'Ossola to then end up in Fargas, which produced and distributed boilers, ascots, kitchens and heaters. I worked in Fargas until 1965 first as an employee and then as an agent until 1969. I then opened up this business because a wholesaler in Brescia encouraged me to do so and financed me to get started; a commitment that I honoured in just a couple of years and from then on, slowly, year after year the company grew to become what Raccorderie Metalliche is today and that is a great business in our sector with a head count of 250 people, a turnover of 70 million Euros and an export rate of 63% in well over 54 countries throughout the world.

Next year your business officially celebrates its fortieth anniversary?
Raccorderie Metalliche effectively dates back to 1971, but 1996 is an important date as it is the year in which the current facilities in Campitello di Marcaria, 15 km from Mantua was inaugurated. In fact, most of the design and production activities of the whole product range are carried out: radiator caps, radiator reducers, pipe clamps, pipe fastening systems, pressfit systems, stainless steel and carbon steel fittings, radiator brackets and many other hydrothermosanitary articles.

Pier Luigi Ceccardi was President of the Association of Industrialists in the province of Mantua in the four-year period from 2002 to 2006, Vice President of Federmeccanica in 2004 and from October 2005 up to the date of his appointment as President of Federmeccanica, he was President of the COMETA Fund. In December 2002 he was he was bestowed the honour of Grand Officer of the Italian Republic, after that of Commander in 1991, Officer in 1989 and Knight in 1978.

You are a patently clear example of made in Italy?

We are an Italian company and proud of it. For this reason we are launching a very strong campaign to identify our product as "made in Italy" by placing this mark on each piece produced by us. It is a very big challenge and a sound response to distributors who import from the East and Far East. Having a production that is 100% Italian, we want to stand out from those who create confusion on the market. We want to let people know that we can still produce in this country if certain principles and parameters are respected without necessarily having to delocalise production in countries like Romania rather than Slovakia or Poland. It is already complex enough to manage a company on one's own doorstep let alone thousands of km away, particularly for the typically SMEs like the Italian ones.

> I've never been attracted by these sirens because personally I believe that if you are well-equipped and automated, with a raw material cost that is the same all over the world, it's not only the cost of labour that makes the difference. Mine has been a choice against the tide, which may seem wrong, but I am still convinced that to keep production in Italy is rewarding. Up to now I've been right.

The fact that an Italian product is often a synonym of quality, is it therefore an important added value?

A fitting is something that connects two pipes together and therefore, quite sincerely, producing is not something so extraordinary. Nevertheless, since 1994, the year of certification Raccorderie Metalliche has applied the procedures to eliminate waste, to be more competitive and to create customer value. This philosophy forces us to keep pace with continuous improvements and quality controls on each product and process. Our quality level is recognised and approved by the leading European certification bodies with about forty homologations obtained throughout the world.

Last year, for example, we starter the certification procedures for two new product ranges: pressfit systems in copper and cupronickel. The first will be used mainly for sanitary and gas ap-

BLM GROUP
Challenging the limits of tube technology.

1968 The hydraulic era

Adige: the electro-pneumatic world is taken over by the hydraulic era with the first CM400 hydraulic sawing machine, immediately followed by the CM2500, which is presented at the BIMU trade fair in 1970.

1969 Double-head tube bending system

BLM introduces the "mythical" A25 that automatically bends several tubes at a time without core by using two bending heads. The production output of this model is amazing and for the garden/camping furnishing sectors and household articles it is

a real "blessing".

1970 The first automatic end-forming system

The end-forming system is added to the tube-bending system (AST (Allarga-Sagoma-Tubi) and makes its debut in the BLM product range.

1971 Il Mercurio d'oro

BLM wins the prestigious "Mercurio d'oro" award given to companies who have particularly stood out thanks to their ability to grow and export. This award is met with great satisfaction by all the staff at BLM, some of whom visit Rome to receive the acknowledgement.

plications, whereas the second will be used in the naval sector for firefighting applications and special plants. The homologations necessary for applications on board a ship are numerous and all with very stringent requirements relating to product performance.
We believe that this is the right path to have a different approach on the market and stand out above our national and international competitors. In this way, they too are forced to reach quality levels of excellence to keep up with us. To date, this has paid off, seeing that Europe has practically become a domestic market for Raccorderie Metalliche when in reality it is the third biggest market in the world after China and India. One thing is, though, that every morning you need to do some soul-searching and accept the challenge.
Last year, we also suffered from the overall recession, but we never laid anyone off temporarily on state funds, nor have we ever done so in all forty years of business. There is only one other metalworking business in the province of Mantua besides us, who can boast about the same result: the great Marcegaglia and this makes us proud.

Raccorderie Metalliche is, in fact, characterised by a constant growth, even in difficult and complex times. Is there a secret to this?
The "secret" is a deep-rooted culture of work and always having believed in the company's potential. We have put work at the centre of our interest, but without ever letting us get distracted by parallel and secondary activities. Finance is a banker's job. I'm just an "honest metalworker from the Province of Mantua"; so we have to produce fittings and we've always tried to do it to our best. Our constant growth is undoubtedly due to this. We have simply pursued our goal, also because we believe in what we are doing.

Concepts like automation and innovation, how important have they been for Raccorderie Metalliche?
Enormously. Think that only in the past year we have installed eleven new robots. In total, we have about forty robots among pick and place and anthropomorphic systems, dedicated to more or less strategic roles. This gives an idea of the automation level we have in the company. In general, technology has always played a fundamental role in Raccorderie Metalliche's growth. The number of laser systems that we have are further confirmation of this. The laser is probably the most important technology in which I believed right from the beginning, but the merit goes to those who were truly and practically able to show me what I could have achieved with such a marvellous tool; and I'm referring

here to Adige. I knew how to listen and you knew how to sell me an idea. Which one of the two is the most prevailing aspect I can't say, but what I know for sure is that it is the result of a cooperation, and this is not a circumstantial phrase, it's the truth.
To give you an idea of how important the laser has been and will still be for our production, we are particularly interested in making a further quality leap. For example, with the laser we could perform several processes that are traditionally carried out to remove burrs and shavings. We're talking about "simple" CO2 lasers and if what we have been told is true when applied, it means that we are making a revolutionary change.
Think that normally all the bends in fittings are faced and rounded. But if it were possible to cut the tube using the laser, what reason would there be not to cut the bend; it would immediately be trimmed to say the least. This bend is already being handled by a robot, therefore, by using a five-axis laser it could also be finished with a bevel angle of 45°, giving us evident advantages mainly in terms of cleanliness of the pieces without any shavings and burrs to dispose of and there would be no downtime to change the tool. We would have a more linear production process with fewer downtimes and significant savings of time and money without having to machine the components again.

> If we could turn all of this into real facts, it would really be a quantum shift even if rather binding and exacting considering that a change of this extent would not only involve one laser but a whole series of systems, because we produce 8 million fittings in carbon steel and 1,200,000 fittings in stainless steel per year. If all goes as planned, we would install about ten laser systems over a couple of years.

In view of what you have just told us, was the choice to install the fibre laser a bet or was it the response to a clear production requirement?

Both one and the other. We produce fittings in four different materials, that is, carbon steel, stainless steel, copper and cupronickel. We were not able to cut the last two material with CO2 system due to their reflectivity. Therefore we took the challenge on a technology with endless potential and which, according to many, is absolutely beneficial and efficient, but on the whole is not yet widespread, particularly for tube cutting. Nowadays, the machine produces and we are satisfied also because thanks to BLMs assistance we have gone into full production well ahead of time. I could define it as a win and have no problems in saying that the future lies in the fibre laser technology, even if in our production field the CO2 systems still have much to say for themselves.

How would you define the relationship between Raccorderie Metalliche and BLM Group?

It is definitely a cooperation. The fibre laser system confirms it, apart from the Lasertube system. However, over the years we have installed many other BLM systems including the end-forming and tube bending systems that we have transformed to be able to bend pieces of tube as we do particular work. The last traditional machine purchased from BLM is, for example, a cutting system for copper tube from coil. We could almost define ourselves as a permanent BLM production show room, given that BLM use as a reference and often bring us their potential customers to see the machines in production and we are more than pleased to welcome them. As I was saying, it is an extremely cooperative relationship.

In conclusion would like to address Mr. Pier Luigi Ceccardi President of Federmeccanica and ask if the crisis has really been overcome.

I feel that the crisis is largely behind us. If we managed to consolidate the weak signs of recovery of a market that is starting to open up and, most of all if we managed to do it with more concrete industrial relations and a more co-operative trade union, I am strongly convinced that we could start again.

I will say one thing that may seem a little difficult for the younger generation to realise but in which I believe profoundly; many businessmen of my age were the authors of the rebirth of this country that was a pile of debris after the war had been lost. Nevertheless, Italy has succeeded in becoming the fifth largest industrial power in the world. This is our vocation and our mission.

Therefore, I make this appeal: let us rediscover the price of being an entrepreneur. We have to invest in our companies and bring them to the centre of our attention and interest. We need to restart and resume our position on the market, returning to be the great businessmen we have shown to be. We are a great country and we must never forget it.