Customer reference

Bilfinger IS, Roosendaal - NL

Bilfinger Industrial Services, Roosendaal /NL

HIGH-TECH BY MABI

The (r) evolutionary MABI Bingo 2 EVO and the pipework-fabrication-unit MABI 16-4Z EVO -

packed with technical features - in use here at Bilfinger Industrial Services in Roosendaal / Holland.

Nearly 30 decoilers guarantee the permanent availability of the various types of sheet metal.

Shorter transportation paths:

The decoilers remain stationary, the MABI machines are moved to the decoilers with various types of sheet metal. With the MABI Bingo 2 EVO this is fully automated ...

Perfect storage organization:

Less waste, no leftovers sheet remains on the shelf - all clearly laid ready behind the machine on demand.

Bilfinger in Roosendaal with the third MABI EVO.
2x MABI Bingo 2 EVO / 1x MABI 16-4Z EVO

High automation degree in the Bilfinger production centre

Modern Mabi line with 28 coils

One of the most modern production centres for insulating sheets. This is how the Mabi managing director Markus Biland describes the new logistic centre Roosendaal. The Mabi 16-4Z-EVO continuously produces pipes and the MABI Bingo 2 EVO supplies the shaped blanks at high speed. The machine automatically selects the correct blanks from the 28 equipped decoilers. Twenty sheet-metal specialists process the sheets rapidly and efficiently, producing assembly-ready complete packages according to precise project specifications.

The new Bilfinger Logistic Centre Roosendaal (LCR) Industrial Services – with an area of 32,000 m² - supplies around 2500 employees in Belgium and the Netherlands with personal protective equipment, certified tools and, above all, with insulating, scaffolding, drawing and fire protection materials. In large quantities and, at the same time, as project-orientated bespoke work.
The imposing heart of the LCR is the modern workplace for the prefabrication of sheet material, particularly for large industrial insulation projects. Twenty experienced sheet-metal workers have exchanged their impressively equipped workplaces in Zwartewaal and Antwerp for this hyper-modern centre. Efficient working is an effortless interaction between man and machine in a comfortable, bright and quiet environment. A row of 28 coils supplies two Mabi machines which in turn provide the sheet-metal workers with coded material packages. As assembly-ready finished materials, the sheets are sent in logistic bundles to the projects, together with all other required materials.

480 pipes per hour

Markus Biland and the technology specialist Tore Schumann are delighted to visit Roosendaal and exemplify the technical heart of the LCR. The management of Bilfinger Industrial Services and Mabi describe the Logistic Centre Roosendaal as a "unique, world-class centre."
Bilfinger has been working for years now with modern Mabi lines and has now invested in the latest generation sheet-metal processing machines from this brand in order to profit from the latest automation options. Bilfinger has transitioned from the Vario to the EVO with two new machines. The 16-4Z EVO, also known as the Rohrblitz, is specifically designed for mass and individual production of insulation pipes and blanks. Straightening, cutting, punching, beading and rounding all take place consecutively in a fully automated working process. All commercial material dimensions and types - including Inox - can be processed up to a thickness of 0.8 mm. In addition to the classical sheet width of 1000 mm, the machine can also process the increasingly popular 1250 mm width.

Mabi managing director Markus Biland, with the 16 4Z-EVO in the background, also known as the "Rohrblitz". This machine is completely designed for mass and individual production of insulation pipes and blanks. Straightening, cutting, punching, beading and rounding all take place consecutively in a fully automated working process. All commercial material dimensions and types - including Inox - can be processed. Including the increasingly popular sheet width 1250 mm.

The sheet width of 1250 mm offers significant efficiency advantages, depending on the order, programmed shapes and dimensions. The MABI 16-4Z EVO "Rohrblitz" produces up to eight pipe metres per minute, i.e. around 480 pipes per hour.

Online programming

Bilfinger Industrial Services has put Mabi's patented top model Bingo 2 EVO into operation for the cutting of shaped pieces. This machine is a fully-automated jack of all trades for insulation sheets, with a double cutting system, automatic width adjustment, product coding with fast-drying ink, optimisation of sheet nesting and online programming. The machine can be fully programmed during work preparation. The coding texts can also be adapted or expanded here. For example, project or order data or even the company name. In the future, automatic links between digital drawings (such as e.g. CAD/DXF files, or in a later phase, the upcoming BIM standard) and the Bingo 2 EVO may be feasible. This machine can also be set up, like the above-mentioned "Rohrblitz", as a pipe production line providing the same services. The maximum processing speed here is also up to eight pipe metres per minute.
The Bingo 2 EVO automatically loads standard coils, both the 1000 and 1250 mm widths, in the Bilfinger setup. The LCR has no less than 28 coils in a row. This means that several

types of standard sheet-metal coils are standing ready for processing, in addition to less common, customer-specific or exotic types. Both machines are equipped with an Ethernet connection for communication with the operating network and for maintenance purposes. Mabi offers a service warranty in Europe of up to maximum 48 hours. In practice, however, malfunctions are resolved far more rapidly. Telephone support is immediately at hand. Service engineers can also log in to the machines online, and can directly analyse and often resolve any problems. And, if necessary, a specialist will usually be at the door by the next morning. On being asked, Mabi has cast a careful eye into the future: They are busy working on a vertical coil magazine. The fully automatic coil changer Coilblitz is already available, the logical step is to combine it with a high-rise magazine. This would save a lot of space.

Mechanical

While both Mabis are producing at high speed, effortlessly keeping a team of 20 sheet-metal workers on their toes, we manage to ask the manufacturer about their assessment of laser processing and mechanical processing. "We checked this out intensively", responded Markus Biland. "They are significantly more expensive regarding costs and maintenance. Lasers work with gas and complex optical systems. Expensive and special interventions are necessary at the slightest problem, while mechanical systems are easy to operate and maintenance is inexpensive."

Standardisation

Bilfinger Industrial Services have standardised their finished part sheet processing as far as is possible, while complying with their in-house quality standard IsoPerfect. The working method and machine processes were perfectly matched during the setup of the production process in Roosendaal. Complicated conversions of drawings to machine programming are summarised in logical standard tables. This excludes interpretation differences and significantly reduces the preparatory work.

Bilfinger uses the patented top Mabi model, Bingo 2 EVO, a fully automated jack of all trades for insulation sheets, to cut shaped pieces: Double cutting system, automatic width adjustment, product coding with fast-drying ink, optimisation of sheet nesting and online programming. The machine can be fully programmed during work preparation. The coding texts can also be adapted or expanded here.

Man and machine: On the right, the double MABI line for two x eight pipe metres per minute, on the left, the team of specialists that process these pipes extremely efficiently into assembly-ready project packages.

Technology specialist Tore Schumann. A brief glimpse under the engine cover of the Bingo 2 EVO. Tore Schumann doesn't mind a few scratches on the new line.
"After all, we are in production here!"

This also has administrative advantages: The same data are available directly and without further processing for e.g. surface area calculations or product-costing analysis.
Mabi also sees a significant operational advantage in such standardisation: Standardisation makes programming so easy and efficient, that the machine data can already be provided in the offer stage. When the order is placed, all you have to do is just press the "Start" button.
Bilfinger put the new generation Mabi machines into operation at the end of 2012. The operators and work preparers were instructed in the operation. Production is underway after the running-in period and the usual fine setting work. We even saw a few scratches on the machine. "Yes, of course", said Tore Schumann. "After all, we are in production here!"

MABI Laser vs. MABI Bingo EVO

- Advantages and disadvantages of the laser technology
- Advantages of mobile data collection (measurement system)

Question: Where do you find your ideas for constant developments and innovations?

MB: The harmonious cooperation with the entire MABI team drives us to ever greater heights of performance.

Question: The latest development from MABI is the MABI 3000E EVO laser. Which advantages and disadvantages can you think of?

MB: Laser technology is nothing new to us. MABI presented the first laser system already in 1992 at the Euro-Blech in Hannover. The obvious advantages consist in the manifold cutting possibilities. We must mention some disadvantages, especially concerning the spare parts warranty and the significant maintenance effort.

Question: What exactly do you mean by that?

MB: All bearings and moving parts are severely affected by theresulting fine particulate matter. This means that the system needs to be cleaned from the inside practically on a daily basis. Of course, one can ignore this, but our experience has shown that the effect becomes noticeable after a certain utilization period, giving rise subsequently to expensive service works.

Question: Are you saying that the maintenance effort is lower for the mechanical cutting systems, such as MABI Bingo?

MB: The entire effort is much lower! The use of mechanical cutting systems patented by MABI offers many advantages.

Question: Can you mention some of them?

MB: Just think of the knife change. It can be done by the customer himself. This means the cutting process produces virtually no fine particulate matter. As a result, the entire cleaning effort is much lower. In many cases, technical defects can be remedied by the customer himself. Laser technology has higher safety requirements and demands specific training of the customer.

Question: You spoke earlier about spare parts procurement, didn't you?

MB: We use a third-party product for the laser source. As a consequence, we become dependent on a supplier and cannot guarantee our customers that the spare parts for the laser source will continue to be available in the future.

Question: Is this an issue for the customer?

MB: This is precisely where MABI has earned a good reputation in the past. Quick availability of MABI spare parts and the professional and well-known MABI service. This is what our customers appreciate - it gives confidence in the planning.

Question: This means you favor the mechanical cutting systems?

MB: Yes, of course. We can continue to offer our customers theaccustomed MABI service - without being dependent on a supplier. Our customers have much lower maintenance costs and less nonproductive time caused by the coil change, filter change (suction system, which is necessary in the laser technology) as well as the constant change of nozzles and fine-tuning of laser optics. It is a very complex technology.

Question: In which cases is a laser system worth considering?

MB: We regard the laser as an additional machine. For cutting specific shapes. Importing DXF data has advantages as well. However, laser technology cannot compete with MABI Bingo EVO.

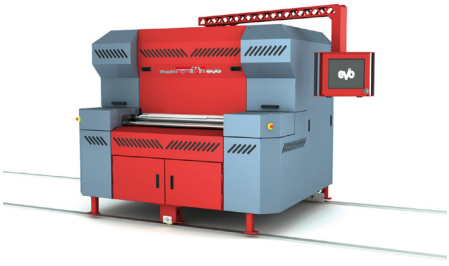
Question: How come you areso sure about it?

MB: Just look at the mobile measurement system. The entire data can be rounded on a Bingo 2 EVO. The pipe meters are produced fully automatically and the necessary sheet metal is changed fully automatically. Many of our customers use these advantages with visible success. It is not without reason that many of them have meanwhile commissioned a second system.

MABI 3000E EVO LASER

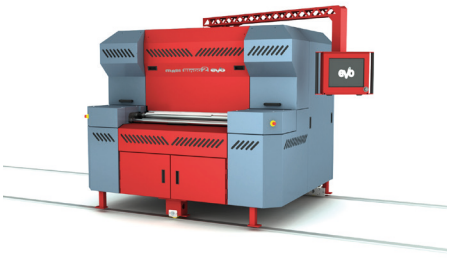
▲ MID-POWER

MABI Bingo 16-Z EVO



▲ HIGHLIGHT

MABI Bingo 2 EVO



TOPMODEL ▲