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Title: Perspectives of 15 years of BERALMAR in the Balkan region.

Abstract

Now that it has been just 15 years since BERALMAR started servicing the Serbian market, and given the trajectory of the market and the performance of BERALMAR during this period, maybe it is time to explain again who BERALMAR is really, and to analyze how we can be of further help in the near future.

Who is BERALMAR, really?

It may seem like a tricky question but that's far from my intention. BERALMAR is today known not only in Serbia but in the entire Balkan region, from Slovenia to Bulgaria, in a market approach that started in 2003 when I first set foot in the Serbian market with the invaluable support of Milena Blagojević, our dedicated local agent.

The market in the Balkan region has been rather tough during this period, with several brickyards shutting their doors permanently, decreasing brick prices, and increasing fuel prices. When BERALMAR started visiting the local brick makers 15 years ago, the only fuels used were natural gas wherever it was available and heavy-oil wherever not. But the price of these two fuels started to climb steadily and for nearly every brick plant, substituting these fuels by the much cheaper petcoke has been a matter of survival. BERALMAR was the pioneer of this alternative fuel in the region, and as such we have supplied petcoke firing systems to 18 kilns in Serbia, Bosnia, Croatia, Albania, Macedonia and Bulgaria ⁽¹⁾. True, we also implemented a successful deep plant modernization for NAŠA SLOGA ⁽²⁾—our very first job in the region back in 2004, we have supplied some natural gas and heavy-oil burners and even a solution to supply clean hot air using biomass; but in the mental imaginary of the local brick maker, I'm pretty sure BERALMAR tends to be identified for what the market has mostly been demanding in the last 15 years: a supplier of petcoke firing systems.

Yet solid fuel firing systems is only one of the many products in our catalog. So “who is BERALMAR, really?” is not a tricky question, but a very literal one that deserves being answered.

BERALMAR is a complete supplier of the heavy clay industry

This is one way to put it. BERALMAR is an engineering and machine manufacturer that offers a long range of solutions in the fields of handling equipment, drying and firing. The only areas in a heavy clay plant not covered by BERALMAR are actually clay preparation and shaping:

BERALMAR supply in bold.

Supply not covered by BERALMAR in *italic*.

COMPLETE PLANT

| CLAY PREPARATION AND SHAPING | HANDLING EQUIPMENT | DRYING | FIRING |
|--|---|---|---|
| <i>Clay preparation:</i> <i>Reclaimers</i> <i>Hammer mills</i> <i>Disintegrators</i> <i>Roller mills</i> <i>Laminators</i> <i>Wet pan mills</i> <i>Shaft mixers</i> | Cutting: Bar cutter (horizontal and vertical) Push-through multiple cutter Multiple chamfering cutter Extruded roof tile cutter Universal rotating multiple cutter | Engineering of Dryers: Semi-continuous with dryer cars Semi-continuous with platforms Chamber dryers Rapid dryers Direct setting dryers | Engineering of Kilns: Traditional tunnel kiln Air-tight high performance tunnel kiln |
| <i>Shaping:</i> <i>Extruders</i> <i>Presses</i> <i>Dies</i> | Programming tables | Heat generation: Gas burners for ducts and mixing chambers Gas burners for mixing chambers Combustion chambers for liquid fuels Combustion chambers for solid fuels (coal/biomass) Combustion chamber for petcoke Heat exchangers for liquid fuels Heat exchangers for solid fuels | Firing equipment: Gas burners and injectors Heavy-oil gasification injectors Solid fuel firing systems |
| | Loading and unloading of dryer: With belts / chains With grippers With robots | Ventilation: Axial recirculators (fixed and travelling) Conical recirculators (fixed and travelling) | Other equipment: Fast cooling Air injection and recirculation Exhaust gas filtering |
| | Kiln car setting: With grippers With forks With robots | Automatic dryer control system | Automatic kiln control system |
| | Kiln car de hacking and packaging: With grippers With robots Plastic wrapping Strapping | | |

Just to portray BERALMAR's capacity as a supplier of complete plants, during the time BERALMAR has been visiting the Balkan region (2003 to present) the following projects have been carried out in other parts of the world:

| Year | Brick plant (* projects under execution) | Country | Output | Beralmar Supply |
|-------------|---|----------------|---|------------------------|
| 2003 | Cerámica Espíritu Santo | Spain | 700 tn/day of thermo-blocks | Dryer |
| 2003 | Ladrillera Bayamo | Cuba | 250 tn/day of hollow blocks | Kiln |
| 2004 | Alfareria Santa Teresa | Venezuela | 300 tn/day of hollow blocks | Kiln |
| 2004 | Ceramica Valera III | Spain | 120.000 roof tiles / year | Complete Plant |
| 2005 | Procesadora de Arcilla | Panama | 350 tn/day of hollow blocks | Kiln |
| 2005 | Dimabriq | Morocco | 400 tn/day of hollow blocks | Kiln |
| 2006 | Cerámicas Alonso | Spain | 350 tn/day of large formats | Complete Plant |
| 2006 | Qatar Brick | Qatar | 300 tn/day of hollow blocks | Dryer |
| 2006 | Cerámicas Mira | Spain | 400 tn/day of multiple formats | Complete Plant |
| 2006 | Briqueterie Timadanine | Algeria | 200 tn/day of hollow blocks | Complete Plant |
| 2007 | Pápateszeri Téglaipari | Hungary | 250 tn/day of thermo-blocks | Complete Plant |
| 2008 | Ladrillera Santa Clara | Mexico | 650 tn/day of ceiling blocks | Complete Plant |
| 2009 | Mályi Téglaipari | Hungary | 300 tn/day of thermo-blocks | Kiln |
| 2010 | Cerámica Ctibor | Argentina | 350 tn/day of hollow blocks | Kiln |
| 2012 | Salamabriq | Morocco | 500 tn/day of hollow blocks | Complete Plant |
| 2013 | El Rym 2 | Algeria | 720 tn/day of hollow blocks | Complete Plant |
| 2014 | Arban | Russia | 250 tn/day of solid bricks | Complete Plant |
| 2014 | Nueva Refractaria Campo | Spain | 70 tn/day of refractories | Kiln |
| 2014 | Briqueterie Amraoua | Algeria | 330 tn/day of hollow blocks | Complete Plant |
| 2015 | Briqueterie Timadanine 2 | Algeria | 900 tn/day of hollow blocks | Complete Plant |
| 2015 | Ekoklinker | Russia | 200 tn/day of klinker facing and pavers | Complete Plant |
| 2016 | Cerámica del Este | Bolivia | 600 tn/day of hollow blocks | Complete Plant |
| 2017 | Amina Briques | Morocco | 800 tn/day of hollow blocks | Complete Plant |
| 2017 | Hap Kee | Malaysia | 750 tn/day of solid bricks | Dryer and Kiln |
| 2018 | Boshan | Kazakhstan | 325 tn/day of solid bricks | Complete Plant |
| 2018 | Cosentino | Spain | 1.100 tn/day of Dekton tiles | Dryer |
| 2018 | Ceramics Bricks * | Uzbekistan | 200 tn/day of solid bricks | Complete Plant |
| 2018 | Döwletli Dovreti * | Turkmenistan | 500 tn/day of multiple formats | Complete Plant |
| 2018 | New Brick Plant (confidential)* | (confidential) | 400 tn/day of perforated bricks | Complete Plant |

Besides being a complete supplier of the heavy clay industry, BERALMAR is also well-known for its capacity to improve existing plants through a technical audit that aims at identifying the necessary actions to optimize outputs, qualities and consumptions, and to solve any given problems. In the Balkan region we have had the chance to prove such skills at NAŠA SLOGA in Kovin, the MLADOST roof tile plant in Leskovac, the block plant of the NEXE Group in Sarajevo, etc. This capacity to improve existing productions remains one of BERALMAR strongest points.

Once the complete scope of BERALMAR's supply has been established, it is time for a few words to describe the type of organization that we have, and a bit of our corporate culture and values. Many Serbian customers have made business with us in the last 15 years, and have had the chance to certify first-hand the business seriousness and the technical skills of BERALMAR. Many have also had the chance to visit our facilities in Barcelona (for those who haven't I recommend watching the company virtual visit video on YouTube: <https://www.youtube.com/watch?v=J4t6FKrQhyy>). All of them must have noted that BERALMAR is not some small "desk and workshop", nor a multi-national: with about 70 employees, BERALMAR is a medium size company for our industry standards, a manageable size that allows us taking every order, every project, very personally: from the general management to the commissioning technicians, our customers are not numbers, but names and surnames, with known needs in contexts that are familiar to us.

What the market is likely to demand in the short and mid-term

With our long and continued presence in the Balkan region I humbly dare to forecast and share what we believe the market in Serbia may need in the short and mid-term.

We may agree that the current context is made up of slowly rising construction activity levels, brick prices generally contained and fuel prices going up (this is unfortunately a global trend). As a result we expect small to medium investments aiming at expanding productions and decreasing energy costs even more, which is pushing things to the limit in a market that already consumes a low cost fuel. At the same time, new formats are expected to increase their presence in the market, especially larger thermo-blocks. Increased product quality (both towards the consumer and also towards diminishing costs of rejects) will also be expected too.

As a brief of the assessment above, we expect the following type of demand:

- Update of handling equipment of wet material.
- Optimization of drying and firing processes in order to increase productions and quality.
- Generators running on low cost fuels (coals, biomass or petcoke) to generate clean heat for the dryers, that would allow regulating the kiln correctly and not as the only source of heat for the dryer.

- On the optimistic side, maybe even a green-field construction of a new plant.

But forecasts are generally doomed to become laughing stock; wherever the wind may actually blow from, BERALMAR will continue to be at the disposition of the Serbian heavy clay industry, with its technical skills and business friendliness, to help from solving a tiny problem at a dryer or a mechanism, to supplying a brand new production plant. And that is who BERALMAR really is.

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References and links:

⁽¹⁾ <http://www.beralmar.com/sr/content/references-solid-fuel-firing.html>

⁽²⁾ <http://www.beralmar.com/sr/newsletter/show/date/2016-10-31#news1>