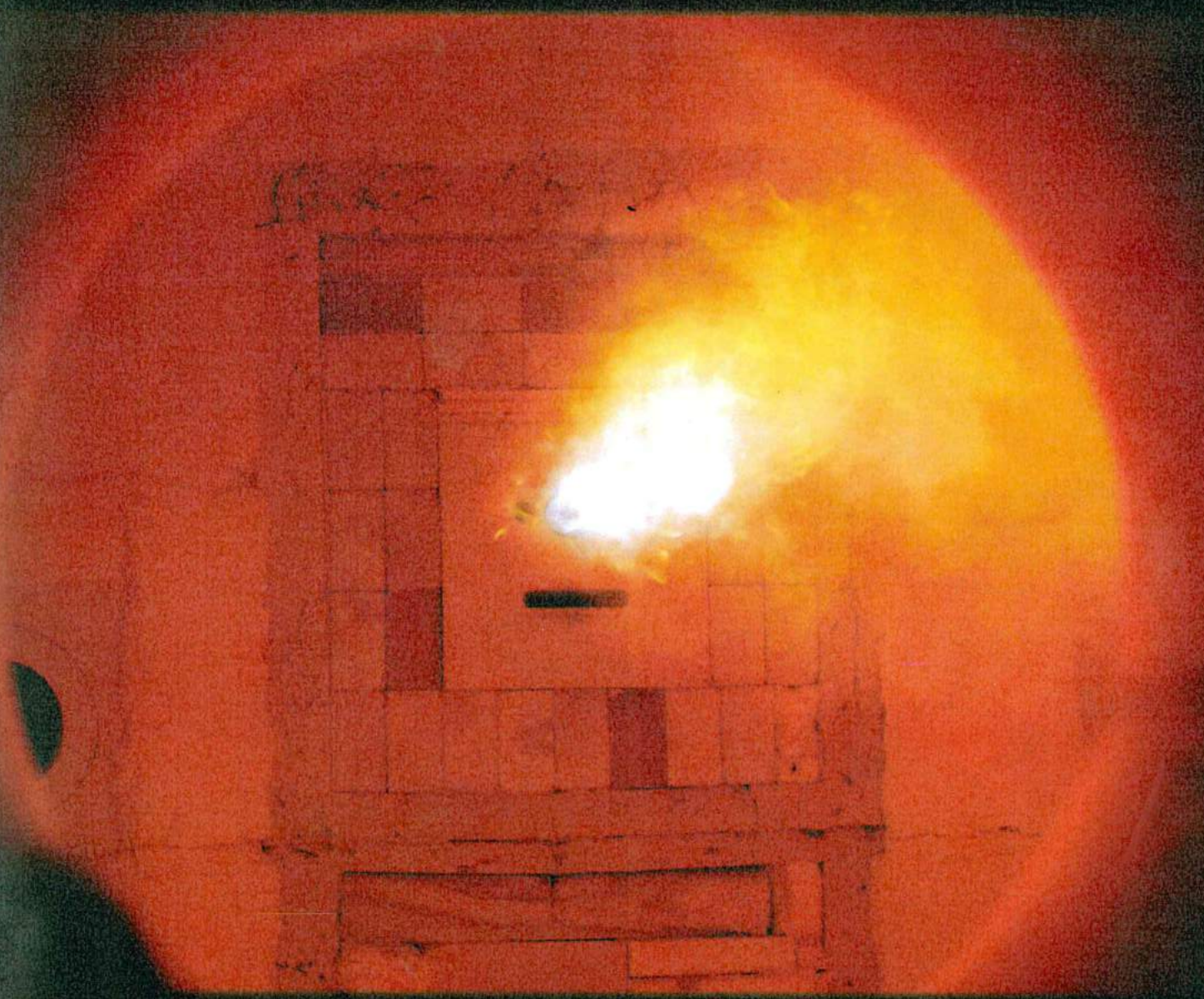


LIGHT METAL AGE

THE INTERNATIONAL MAGAZINE OF THE LIGHT METAL INDUSTRY



- Novel Oxyfuel Boost Burner Reverb Retrofit
- Extrusions Formed from Machining Chips
- Scrap Recovery Technology





Figure 1. VIAS installed its first aluminum extrusion line.

Bulgarian Window Frame Manufacturer Installs First Extrusion Line

VIAS Ltd., a privately owned company located in Shumen, Bulgaria, is one of the leading European manufacturers of PVC profiles for window frames and fittings. The company recently decided to expand its product scope in order to provide aluminum extrusion profiles for the architectural industry. To that end, VIAS installed its first complete extrusion line (Figure 1). The company selected Presezzi Extrusion Group to supply technical assistance and installation of the new line, in part due to the ability of the group companies—Presezzi Extrusion SpA, Profile Automation srl, Coim srl, and Reiter & Crippa srl—to install the entire scope of the project with full integration and automation.

Following an extensive and comprehensive project analysis, the new press line was completed, including the installation of a billet and log heating system, a front loading extrusion press with an automatic handling system, an aging furnace, and a complete packing line. The entire plant incorporates advanced technology that allows VIAS to achieve high product quality and energy savings.

A 7 inch gas-fired log furnace was installed by COIM with a capacity of 3 tph, which is designed to ensure accurate heating, low energy consumption, and very low maintenance cost. It includes a hot shear, log feeding table, log pusher, and conveyor to the press.

The 18 MN, 7 inch front loading press is equipped with the patented energy saving system, PE.E.S.S., which can have an energy savings of 25% depending on the profile being produced. The PE Manager systems automatically manages the furnace temperature, press parameters, and puller force to simplify the operation of the stretcher, automatically adjusting its parameters to new profiles.

The press is fitted with HECS (High Efficiency Cooling System) quenching system with a newly designed pattern of air and water spray nozzles for improved efficiency (approximately 25% compared to traditional systems). The handling system is equipped with an electric dual puller with flying saw for accurate cut-on-the-fly sawing of profiles following extrusion, a cooling table with propri-

etary cooling fans, a stretcher, and a cut-to-length table with automatic stacker.

The material handling and packing line supplied by Profile Automation included an automatic profile stacker with spacer distributor and the full and empty basket conveyors required for transferring profiles to the double length aging oven (Reiter & Crippa) and to the powder coating and wood-effect lines. Material handling automation includes two automatic overhead bridge cranes used to automatically load and unload the aging oven with longitudinal flow, as well as an automatic profile destacker and spacer recovery system.

The packing line includes the installation of a loading conveyor and an adhesive film application machine (model 884). The film application machine works at a rate of up to 60 m/min, essentially processing up to eight 7 m long profiles per minute with profile widths up to 300 mm and 200 mm in height. It can also apply film to two profiles simultaneously with a maximum width of 100 mm each. The packing line also includes a spiral wrapping line for sub-bundles with dimensions up to 300 x 300 mm, which are 7 m long. There is an automatic bundle stacking and a linear strapping line for finished bundles with dimensions of up to 800 mm by 800 mm. The whole packing line, which can reach a production of up to 4,000 kg per hour, is manned by just three to four operators.

The plant is also equipped with a Presezzi-developed monitoring system to track the service life of the entire press line. This allows the service department to check on the current status of the plant via the internet from anywhere in the world, as well as make comparisons to the plant status from minutes, hours, months, or even as far back as years ago. The monitoring system makes it possible for the service department to advise the operator or maintenance staff as to what needs checked or replaced in real time.

The completion of the new press line at VIAS allows the company to expand its manufacturing capabilities and better serve the European market.