



ITW Gema

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Figure 1. Loading and unloading the profile conveyor.

High-Tech Painting Plant for Aluminum Extrusions Installed in Mexico

By Al Kennedy, Contributing Editor

One of the most advanced extrusion paint plants in the Western Hemisphere has begun production in Monterrey, Mexico. Cuprum SA de CV, a subsidiary of Grupo IMSA, announced the successful start-up in April.

The new painting system is a high capacity vertical line that can apply powder coatings, liquid polyfluorides (PVF2), or liquid polyester. This unusual combination permits exceptional flexibility for adjusting to customers' requirements while meeting the strictest environmental quality standards. Maximum profile length is 24 feet.

Located at Cuprum's original plant in Monterrey, the new paint plant joins the growing IMSALUM division of IMSA, which also recently announced the acquisition of Alcomex, formerly the Mexican plant of Alcoa. Cuprum is now Mexico's largest aluminum extruder, with two extrusion plants in Mexico City in addition to the one in Monterrey. Cuprum originally introduced painted profiles to the Mexican market in 1992, when its smaller horizontal line started production. Rapid growth of the market since that introduction has dictated the demand for a larger line.

The new paint line, supplied by Trevisan Srl, of Verona, Italy, incorporates leading-edge technology on many fronts. Vertical application of powder coatings has been considered a "no-no" in the U.S., following well-publicized problems experienced in earlier attempts. This plant not only applies powder in a vertical line, it also switches to liquid paints quickly and efficiently. Add this to the latest technology in environmental protection, pretreatment, powder recovery, and fast color change, and the result is truly a state-of-the-art production facility.

Powder coatings are applied with Ransburg-Gema equipment operating in three powder booths, all equipped with powder recovery systems. Two main booths are used for high-capacity application on large production runs. Each sprays powder on opposite sides of the profiles to achieve superior coverage even in difficult grooves. A common recovery system for both booths collects and reclaims 98 percent of powder overspray. The polyethylene booth walls may be quickly collapsed for



Figure 2. View of profiles entering first powder spray booth.

cleaning without stopping the line, so that painting may continue in either the single powder booth or the liquid booths during the 50 to 60 minute color change cycle.