**Factsheet Aluroller SF**

The Aluroller SF is used to thermally insulate and assemble aluminium profiles at the biggest insulation entity for aluminium frame production in Europe; Reynaers’ ultra-modern plant in Duffel, Belgium.

**Some facts and features:**

* It is highly automated and delivers 10% to 20% faster running times, zero defect tolerances, easy adaptability and faster setting times to insulate new designs and different frames without human intervention.
* Quality remains perfect from the first to the last profile and no profiles are rejected.
* The machine is far ahead of its time, incorporating the production principles of LEAN- , SMART and GREEN manufacturing in one entity. These include:
* Its unique rolling-in technology makes it the only machine to guarantee correct profiles of high quality without the need for subsequent “corrections” to be made due to stress differences after production, adhering to the principle of **First time right with zero defects.**
* It addresses the full range of scales accurately across the entire profile during the production process while the machine’s rigidity effectively absorbs the moulding stresses during the press stage.
* Its continuous flow nature integrates all the operations for the insulation of aluminium profiles in one machine, effectively nullifying bottlenecks in the production line.
* Its compactness makes it easy to be observed from a central point.
* It is designed to swiftly switch over to new batches with minimum waste.
* It allows its data to be synchronised online with other production aids such as industrial robots, vision and control systems, online reporting systems, etc.
* The machine’s **Overall Equipment Effectiveness (OEE)** is evident from its cycle time that is 20% more effective than its predecessor, the Aluroller V11. With its data exchange capability this cycle time can be curtailed even further.

* The Aluroller SF has been installed in 25 countries across the world where it is being serviced by a small Belgian team of only a few technicians. Its **Total Cost of Ownership** that is evident from its short repayment cycle is further enhanced by its increased production capacity and its inherent zero waste capability, while its very low energy consumption also brings its total operational cost down substantially.

**Factsheet QLab**

Reynaers recently upgraded and refurbished its quality testing laboratory, **Q Lab**. Here Reynaers tests the strength of profiles, layer thicknesses, gloss and adhesion of lacquers, performance of support gear, dimensions, scratch measurements, hardness of aluminium, etc.

The CMM’s extreme precision and speed, delivering up to 20 scans or measurements per day, adds perfect value to Reynaers’ declared intent to deliver superior quality products and to comply with ISO-standards, ensuring lower tolerance between parts at installation and better alignment of the different parts of frames.

QLab already employs an impressive arsenal of equipment:

* A hardness tester tests the hardness of the aluminium in profiles. Brinell measurements are performed by forcing a bullet into the test material. The dimension of the intrusion indicates the relative hardness of the material.
* A profile projector is used to measures dimensions and matching tolerance fields on profiles and gaskets. Test samples are enlarged tenfold by a lens and then manually measured.
* The Romidot measures dimensions and matching tolerances on profile prototypes and first deliveries. A 2D picture of the intersection of the profile is made with a scanning device after which the picture is automatically compared with the technical design drawing and tolerance fields.