



*Wide-angle view of a typical Capri shot blasting machine for transformers*

# OMSG has transformer expertise

Years of experience have made the company a reference point for the shot blasting of transformers says Lorenzo Asa, its technical sales manager (pictured)

The ever-increasing worldwide demand for electrical power and prospects for future development of entire continents require continuous upgrading of production and distribution infrastructures. Among these, a key role is played by electrical transformers which, being increasingly powerful and efficient, require a repeatable and meticulous production process to respond to everyday higher quality standards.

OMSG (Officine Meccaniche San Gior-

gio) Spa, based in Villa Cortese (Milan, Italy) and leader in the design and construction of shot blasting machines, has lent its 50 years' experience to support this sector and ensure a high quality of surfaces preparation for the next painting treatment.

Among the various constituent elements, a special role in fact is played by the tank, which must protect the internal electrical components for decades while exposed to the weather and even harsh climatic conditions. For this reason, manufacturing



requirements are gradually aligning to the top, including the wheel shot blasting method for surface treatment.

The benefits of such a process are in fact multiple: first it ensures an effective, deep and complete cleaning of the metal by removing all traces of oxides, rust and processing residues; then it ensures the roughness required for safe and long-lasting adhesion of painting.

It is also a waterless and, therefore, an "ecological" process, as it produces dry industrial waste only. Therefore, the traditional chemical pickling is more and more frequently dismantled to make room for a centrifugal blasting machine which definitively solves the problem of expensive wet residuals disposal.

But, of course not everything is as simple as it may seem at first glance: transformers have in fact densely finned surfaces with deep undercuts which make proper cleaning difficult. Moreover, the steel sheets that constitute the structure are extremely thin and therefore subject to permanent deformation induced by the multiple impacts of abrasives against

the sheet's superficial fibres: the so called "shot-peening effect".

Only with deep experience and a machine that allows accurate tuning of the operating parameters can one have the baseline to minimise warp while ensuring accurate finishing through a precise compromise between launching speed, positioning of the turbines, composition and particle size of the abrasives and cycle time.

#### CAPRI PROPOSED

For this application, OMSG proposes its proven spinner hanger hoist model shot blast machine Capri, which is equipped with all the devices necessary to bring excellent results: the tank is hung and moved inside the blasting chamber where turbines invest it with a huge amount of abrasive. A second hook used for operations of loading and unloading reduces tooling times almost to zero and ensures a high plant usage rate together with excellent proven results and an effective return on investment.

OMSG can boast important references among primary transformers manufactur-

ers in Italy, Europe, the Far East and South America. The company also is partner of Trafogrid Alliance, which gathers several Italian companies, leaders in transformer manufacturing plants and processes.

OMSG technology ensures its customers enjoy the highest quality standards in surfaces treatment, together with exceptional usability and reduced maintenance operations. The patented single-disc, direct-drive turbines, featured by a wide opening of the projection cone, ensure homogeneous finishing. Furthermore, thanks to the impressive stock of spare parts and to the timely service network across all five continents, downtime is minimised.

Therefore, OMSG nowadays represents a reference point in the shot blasting of electrical transformers as it is capable of providing qualified service ranging from identification of the most appropriate solution to commissioning and after-sales service. It is therefore not only a machine manufacturer, though a qualitative one, but even more a reliable partner, capable of providing the most suitable answers to the most demanding needs.



*A Capri shot blasting machine at work with a bulky, densely finned tank*