

DEOXIDATION

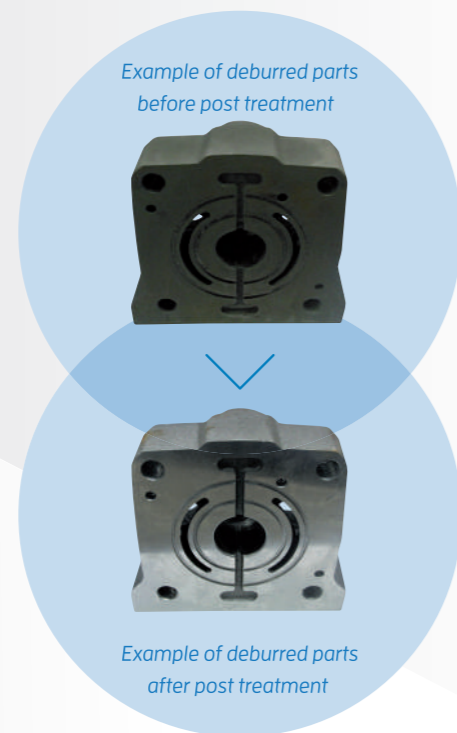
The thermal deburring oxidizes the surface of the treated parts. To restore their original appearance a deoxidation treatment is sufficient.

SGM® has developed, over the years, a deoxidation process without the use of acids and easily adoptable by any industrial activity.

Today SGM® uses:

- **Aqueous and environment friendly products**, that do not require rinsing;
- **Industrial washing machines** equipped with an ultrasonic and vacuum system.

The process ecologically meets the needs of preparation and especially of deoxidation of ferrous, cast iron and aluminum parts thermally deburred.



WM 800

Industrial Washing Machine ideal to carry out the post-treatment de-oxidation process of thermal deburring, in compliance with environmental regulations, it fully satisfies the needs of preparation and especially deoxidation of ferrous, cast iron and aluminum parts subjected to thermal deburring with a simple and fast cycle.



CUSTOMER SERVICES

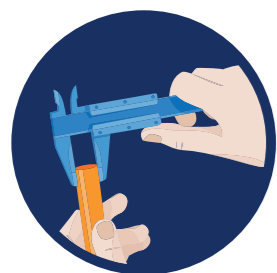
Choose at best is the first step to optimize expences and meet quality criterias.

That's why we assist the customer from the first contact.

Technology, for SGM®, is always to services the client:

- **first**, by a targeted items analysis and free trials;
- **during**, by an on-site training about machine use and maintenance;
- **after**, by technical advice and assistance and remote connection for diagnostics.

In this way SGM® ensures an optimal result, thanks to an experience of more than thirty years.



Analysis and study of the piece to be treated



Free Trials for an optimal result



Delivery of the machine and on-site training



Assistance and supply of spare parts and consumables



ADJUST THE SHOT



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NEW-TEM

THE ONLY TEM WITH HORIZONTAL DEBURRING CHAMBER

SGM®

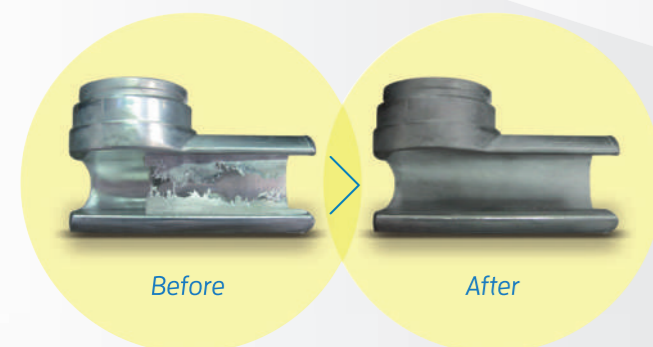
SGM s.r.l. is a leading company in the metal deburring process and has more than thirty years of experience (born in 1979 with the name of STM sas).

The history of SGM® is a succession of challenges undertaken and won thanks to a constant desire to ride the times with innovative ideas, never relying on standardized models.

SGM® now offers an integrated process for the entire cycle of pre-treatment, thermal deburring, final deoxidation and protection, with results that are highly competitive, with full respect for the environment. In this way SGM® is able to respond to the increasingly demanding requirements of the well-established third party sector as well as of the companies with bigger production volumes, which require the machines themselves.

Our machine meets the most varied needs ensuring results and safety

THE THERMAL DEBURRING PROCESS



The thermal deburring is a system aimed at the elimination of burrs on the components made of oxidizable materials and that come from specific processes (mechanical, die-casting, etc). The process uses, according to a chemical-physical principle, the heat generated from the ignition of a suitable combustible mixture, just as in the case of heat engines.

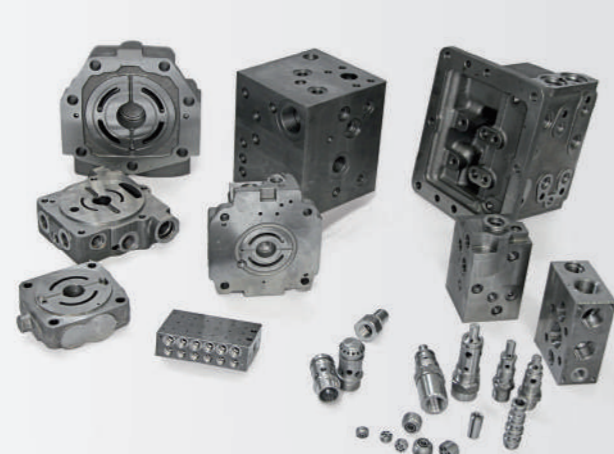
The obtained energy uses the oxygen, contained in the original mixture, to remove burrs, waste and unwanted material present on the edges, within the cavities and surfaces more or less hidden of the treated details.

TREATED MATERIALS



Burrs thickness up to 0,1 mm

- Aluminium
- Copper and its alloys
- Zamak and its alloys



Burrs thickness up to 0,3 mm

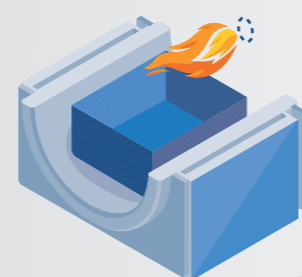
- Steel
- Cast iron
- Ferrous parts

THE NEW-TEM PATENT

2005 is a decisive year for SGM® that, in the challenge of becoming a direct manufacturer, extends its technical department with high specialist profiles. The ultimate recognition of professional and economic engagement in these years converges in obtaining the patent for the new machine New-Tem. The new horizontal chamber, the subject of the patent, will enhance the features of the TEM system.

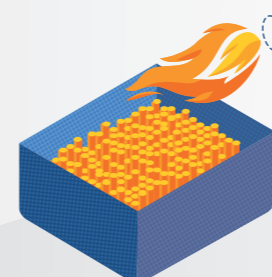
THE HORIZONTAL REVOLUTION

The experience has enabled us to produce innovation by designing the first and only TEM with horizontal deburring chamber. Compact, economical and technological, New-Tem is not only a machine but a revolutionary system for the industry.



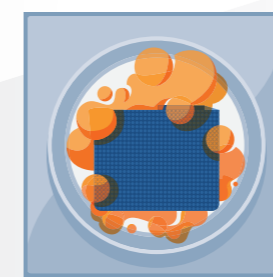
MORE CARE IN THE TREATMENT

With New-Tem the main flame is tangent and acts over the basket, in this way it does not hit directly the pieces



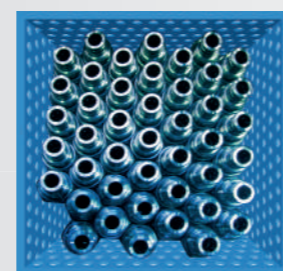
EXTENSION OF TREATABLE RANGE

The tangent flame over the basket allows to expand the range of treatable pieces, no longer subject to superficial burns



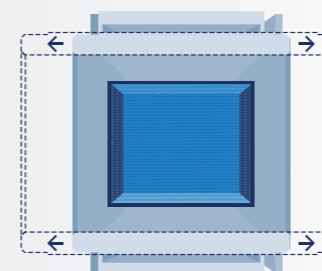
RESULTS UNIFORMITY

The baskets are completely surrounded by the deburring atmosphere avoiding the presence of protected areas



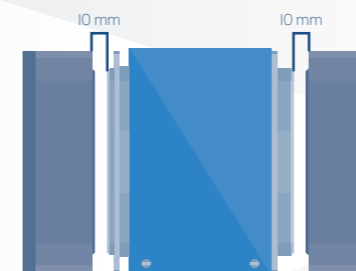
HANDINESS

The rectangular shape of baskets, containing the pieces, facilitates the insertion in to the chamber and reduces the time for the manual positioning of the pieces



CHAMBERS INTERCHANGEABILITY= FLEXIBILITY

An easy interchangeability of deburring chambers of different lengths gives the possibility of production changes



SIMPLIFICATION

Stroke of the chamber closing cylinder remarkably reduced: only 20 mm

RANGE OF NEW-TEM PRODUCTS

The thermal deburring machines are the universal answer to the special requirements. The range of our New-Tem machines directs the customer in to four possible area; it is also possible to study **customizable models**.

XP L 245

Thermal deburring machine with long chamber to treat light alloys, Especially suitable for large aluminium blocks

MATERIALS

aluminium copper zamak brass

Operating pressures (bar)

from 2 to 10

Chamber length (mm)

from 350 to 500

Diameter chamber measures (mm)

260

XP F 450

Thermal deburring machine with long chamber able to treat any type of oxidizable material especially for parts with large size

MATERIALS

aluminium copper zamak steel cast iron brass

Operating pressures (bar)

from 2 to 20

Chamber length (mm)

from 350 to 500

Diameter chamber measures (mm)

from 260 to 300

XP XL 9100

Thermal deburring machine for large blocks of aluminum, steel and cast iron, it works at an operating pressure of 2 to 16 bar. With internal diameter of 410 mm

MATERIALS

aluminium copper zamak steel cast iron

Operating pressures (bar)

from 2 to 16

Chamber length (mm)

from 500 to 600

Diameter chamber measures (mm)

410

XP CUSTOM

Thermal deburring machine with chamber diameter and length based on the needs of our customers