PHILOSOPHY

OUR MISSION

We leverage the universal benefits of glass beads for your special industry applications in energy-efficient ways.

OUR VISION

Industrial glass beads by SWARCO Indusferica – the world's preferred choice in all niches

OUR VALUES

Efficiency
Diversity
Intelligence

OUR MOTTO

Universal Efficiency

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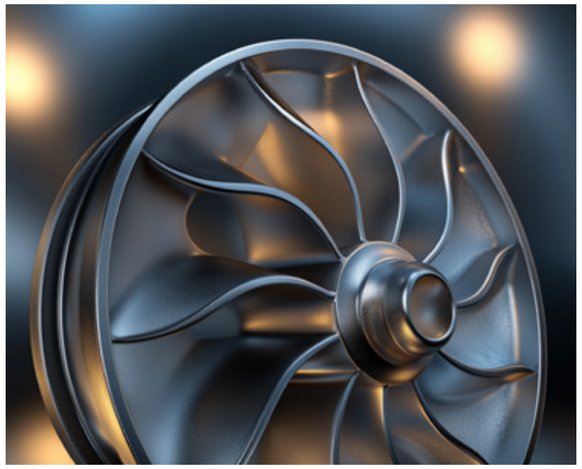
GENTLE SMOOTHING INSTEAD OF HARD GRINDING

3D Prints: Show-Ready, Fast Results



Blasting reduces manual work and ensures a smooth finish and consistent results even with complex geometries.
Photo credit: Midjourney, Studio 0816

Additive manufacturing opens up new possibilities for design, but often also leaves surfaces rough. A quick finish with SWARCOBLAST glass blasting beads removes burrs, smooths the texture and improves haptics. Edges get softer, surfaces become more uniform and the component immediately looks professional. This effect is particularly valuable for hand-made samples, functional prototypes, and small series.

Blasting replaces many manual steps. While grinding is time-consuming and difficult to use in hard-to-reach areas, glass bead finishing ensures a smooth finish and consistent results even with complex geometries. 3D printed parts have a cohesive look, fingerprints are less noticeable and components remain presentable longer, which is an advantage for trade fairs, demonstrations and client presentations.

Downstream processes benefit as well. Paints, varnishes and coatings adhere more evenly, engineering fits are maintained, and rejects and waste are minimized. Thanks to the gentle process, contours and dimensions remain stable.

This brings clear economic advantages: shorter lead times, lower consumption of abrasives and detergents, and less work required for manual tasks. Reproducible results reduce complaints and simplify quality assurance. Integrating the SWARCOBLAST finish firmly into processes saves time and money and ensures that components are ready for use more quickly.

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ALL-ROUNDER

News and Updates from SWARCO Indusferica

MYTH-BUSTER:
GLASS BLASTING BEADS

MEDIA MIX
UNDER CONTROL

COMBINATION FOR
A CLEAN FINISH

GENTLE SMOOTHING
INSTEAD OF HARD GRINDING

#needforbeads

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Dear readers,

Surfaces need to do more than make a good impression. They need to ensure reliable functionality, have a nice feel, and ideally be visually compelling, too. In this issue of the All-Rounder, we present various approaches for designing efficient blasting processes without compromising on quality. This includes tips for consistent blasting media quality, practical insights into a workflow combining granulate and beads, a myth-buster around glass blasting beads, and an article on the post-processing of 3D printed parts.

We want to show how process efficiency, cost efficiency, and high-quality results can be combined in useful ways – because it's often the small adjustments that make a big impact.

Have a good read!

Best regards,

Krisztian Seres
Key Account Manager
SWARCO Indusferica

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OUR NEW WEBSITE IS NOW ONLINE

SCAN THE QR CODE TO FIND OUT MORE

What's behind the three most common myths around glass blasting beads? We get to the bottom of it.
Photo credit: Studio 0816, Midjourney

MYTH-BUSTER: GLASS BLASTING BEADS

Setting the Record Straight

When it comes to using glass blasting beads, a few preconceived notions seem to be particularly persistent. We hear three of them especially often.

"Glass beads always compact the material."
Glass beads can slightly compact the outermost layer. However, whether this effect occurs largely depends on the pressure applied, the nozzle, distance, angle of impact, and grain sizes. This surface treatment makes it possible to achieve positive surface tension on fine aluminium or titanium components without changing their geometry. When it comes to hard steels or when deep compacting is needed, conventional shot peening is the better choice.

"Glass beads leave residues."
Glass beads are chemically neutral. Any residual glass bead particles can be easily blown or rinsed off. Residues are usually caused by other factors, such as insufficient cleaning, oil or grease residues, dirt in the blasting medium, or weak suction. With well-maintained material and a clean process hygiene, components leave the blasting cabin free of residues.

"Glass beads are too soft for steel."
Using glass blasting beads creates a different finish than angular granulate, or steel or ceramic media. Glass beads are gentler on the material, make for a silky matte finish and remove temper and tarnish colours. For high abrasion or a deep profile, it makes sense to use other media. For visible and hygienic surfaces as well as for applications focusing on haptics, appearance and dimensional accuracy, glass blasting beads play to their strengths.

To sum up: What matters are the parameters and desired appearance, not the myth. With clear specifications and the right settings, glass beads can achieve a reproducible, cost-efficient and high-grade visually appealing finish.

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MEDIA MIX UNDER CONTROL

How to Achieve Consistent Blasting Results

Those who use glass bead blasting know that in the end it's the appearance of the surface that counts. We want components to look smooth, feel comfortable in the hand, and come out of the cabin without any surprises. How to get there is no secret – it's about consciously keeping a well-maintained and consistent blasting medium.

The glass bead mix is the most important leveraging factor. If too many larger beads are in use, the surface can quickly look uneven; if the mix is too fine, the surface often lacks the desired texture. A balanced range creates a smooth, silky matte finish. In practical terms, this means that the mix needs to be checked regularly to determine how the medium has changed. Fresh glass beads can then be refilled in small steps instead of waiting to replace a large volume all at once.

The cleanliness of the medium is just as crucial. Blasting produces glass bead fragments and fine dust. That's unavoidable. What can be controlled, however, is their influence on takt time and surface appearance. Regular sieving of the medium and making use of the blasting system's air separation helps to maintain a consistent mix. This results in more uniform surfaces, less rework, and predictable processes.

And consistency in the process also pays off. A stable media mix reduces strain on nozzles and filters, minimizes unplanned downtime, and keeps settings within a comfortable, reproducible range. Typical undesirable results, such as greyness, patchy areas or overly emphasized edges, occur less frequently because the media mix in the blasting cloud stays consistent. Instead of spending a long time fine-tuning pressures or distances, it's worth checking the blasting medium first: If the mix is right, the result will usually be right too.

For everyday operations, this means a quick routine check per layer, a small refill at the right time, and a set sieving interval. That's often all it takes to visibly stabilize quality while keeping costs under control. Less blasting rework, fewer complaints, fewer wear parts – that's efficiency in action, without complicating the process.

In short: Well-conditioned SWARCOBLAST glass beads are more than just nice to have. They're a simple and effective way to improve the result. Keeping an eye on the mix helps to get exactly what customers value – a beautiful, reliable finish, day after day and component after component.

COMBINATION FOR A CLEAN FINISH

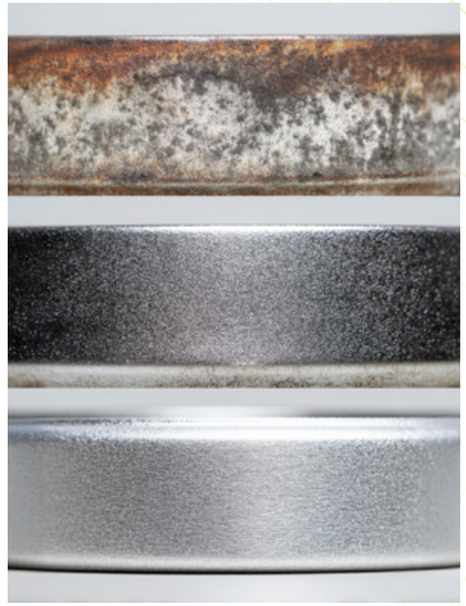
Two Steps, One Big Benefit

Surface treatments can be faster and easier to plan using a combination of angular granulate and round glass beads. The granulate is used for quick roughening, removes old layers and makes for a textured base surface. After that, the glass beads create a uniform, silky matte finish. This results in a clearly structured process achieving a high-grade appearance.

On the shop floor, this translates into shorter blasting times and less manual work. The separate finishing step reduces the workload for employees as well as rework, and lowers energy consumption. Geometries are maintained, rejects and waste are minimized, and wear on nozzles and filters is reduced as well.

In practical terms, this process also impacts sustainability. Blasting media are used multiple times and refilled as needed instead of replacing all of it at an early stage. Less rework also means lower use of abrasives and consumables.

Implementation requires clear steps, set start parameters and short routine checks of the blasting media's quality. Roughening the surface first until the right adhesion is achieved, and then evening out the appearance with the help of glass beads is a process that saves time, ensures quality and reduces cost without adding complexity.



Top to bottom: Workpiece prior to surface treatment, workpiece after using glass blasting granulate, surface finish using glass blasting beads. Photo credit: Studio 0816, Midjourney

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