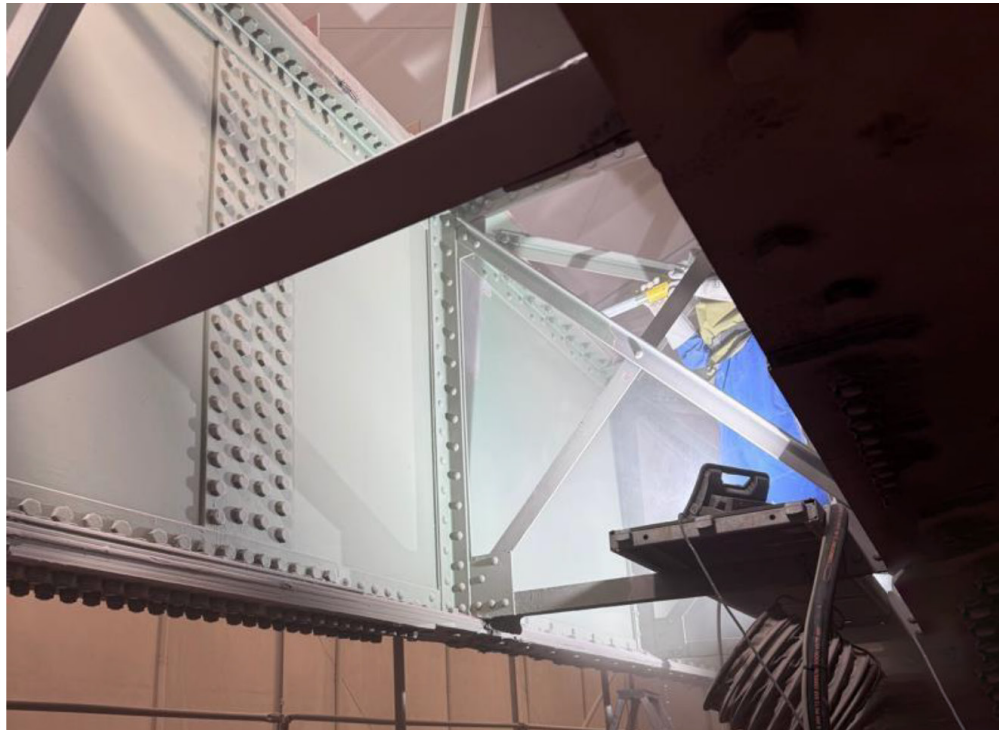


CASE STUDY

Performance Refined: A Collaborative Path to Efficiency with GMA PremiumBlast™



Job Overview

Project	Abrasive blasting performance test on coated steel bridge components
Location	Germany
Customer	A German-based abrasive blasting and coating specialist
Problem	High abrasive consumption, inconsistent blasting speed, and excessive dust formation

Challenge

The customer was initially sceptical that GMA's quoted performance improvements were achievable. They were experiencing high abrasive consumption, reduced productivity, and excessive dust formation due to improper equipment configuration and air pressure losses. The customer sought to optimise abrasive performance and equipment setup to improve overall efficiency, process stability, and cost-effectiveness.

Solution

GMA worked collaboratively with the customer to evaluate and optimize their abrasive blasting setup.

A series of controlled trials were conducted using GMA PremiumBlast™ across multiple nozzle configurations to identify the most efficient combination of abrasive and equipment performance.

The testing compared the customer's existing setup against GMA's recommended configuration, focusing on valve precision, hose sizing, and nozzle selection.

Using GMA PremiumBlast™



PRODUCTIVITY

34% faster*
+53m² per blaster



TOTAL PROJECT COSTS

More than 60% savings
per m² blasted



CONSUMPTION

71% less abrasive*
2.4 tons of abrasive saved



LABOR

71% less vacuuming
34% faster cleaning speed
Resulting in up to 50% less labor hours

* Figures are based on a 8-hour shift (incl. one-hour non-blasting time)

Why is GMA Garnet™ the preferred blasting abrasive?

Achieve safe, effective blasting with minimized consumption and unmatched coating adhesion.



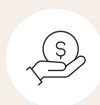
Surface quality

GMA: The proven choice for exceptional coating adhesion and reduced embedment, outperforming copper slag with embedment contamination levels of nearly 4.5 times higher.



High productivity

GMA maximizes productivity and can significantly reduce the cost of surface preparation jobs.



Reduced consumption

Lower your abrasive consumption by 30-50%, giving you savings in abrasive purchase costs, as well as transport, storage and disposal costs.



Workers safety

By using GMA Garnet™ it can significantly reduce the presence of heavy metals and silica which are mainly found in other slag and garnet abrasives, cutting ground and air toxins, protect both workers and the natural environment.



Low dust blasting

Independent tests show GMA Garnet™ cuts dust by up to 80%, boosting visibility and lowering contamination.



Sustainable resource

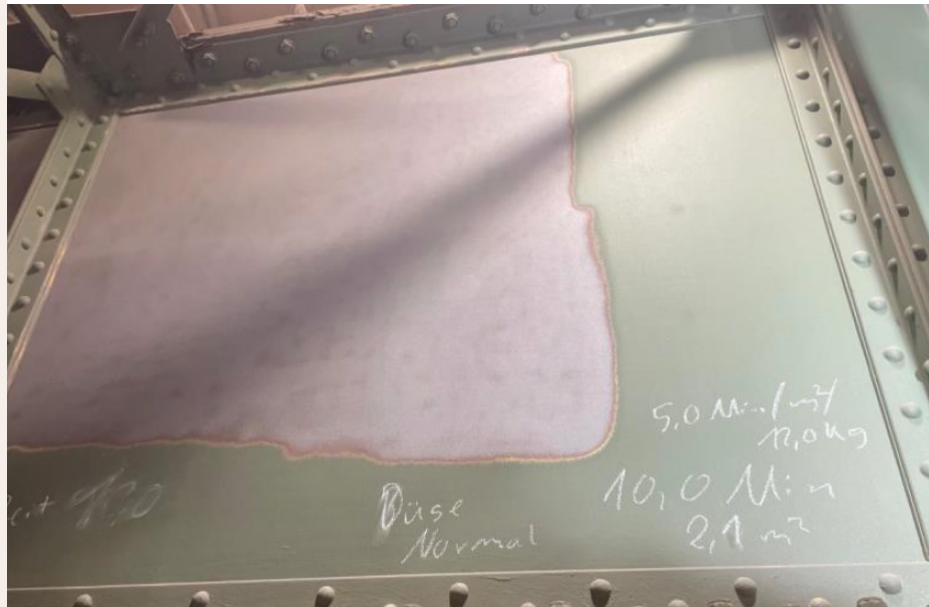
Our garnet recovery programs present a cost-effective and environmentally responsible solution for used garnet disposal, with GMA Garnet™ capable of being reprocessed up to five times.

Disclaimer: GMA applies a uniform methodology to compare costs across various variables. However, discrepancies in costs may occur. It is crucial to consult with GMA and alternative suppliers to confirm the final associated costs and pricing before finalizing your choice of blast abrasive.

The information presented is intended for comparison purposes only and may not accurately reflect the specific prices and costs associated with your blasting project. GMA disclaims any liability for differences between these estimates and actual costs incurred.

Please be aware that the estimates provided are based on blasting bare steel sheets and are meant for general informational use. The calculated figure does not represent a formal offer, and any declarations made herein should not be considered definitive or legally binding. GMA is not accountable for any errors that may arise from rate changes or offers not reflected in this tool's results post-use.

We strongly recommend verifying the most current offers and prices with your chosen suppliers.



Results and Cost Analysis

Configuration	Blasting Speed (m²/hour)	Consumption (kg/hour)	Cost per m² (€)	Savings vs. Customer Setup
Customer Equipment (lever valve, 9.5 mm nozzle)	22.36	559	€18.03/m²	-
GMA Setup – 9.5 mm nozzle	12.9	140	€12.47/m²	31%
GMA Setup – 11 mm venturi nozzle	29.93	214	€6.81/m²	62%

Based on real-world operational results.

Recommendations

- Replace lever valves with Thompson valves for better abrasive control.
- Check and optimize air volume between compressor and blasting pot.
- Continue using 11 mm venturi nozzles for increased speed and efficiency.

Customer Collaboration

“We don’t just deliver garnet — we work through ideas with our customers,”
Steffen Glade, Department Manager, GMA.

“By looking at both the abrasive and their equipment setup, we help optimize performance from every angle. This partnership not only improved their efficiency but continues to guide their long-term operations.”

Outcomes

The collaboration led to more than 60% savings per m² blasted. Additionally reduced abrasive usage, and improved blasting speed and consistency. The customer has since adopted GMA PremiumBlast™ for ongoing projects.