# Enhancing Efficiency and Reducing Costs with GMA ToughBlast™





# **Job Overview**

Blasting a five million gallon
(18.9 mil litres) ground
storage water tank

Location

Water Treatment Plant,
California, USA

Delays due to difficulty in
removing 30 mils (762 μm)
of coating using traditional
slag abrasive.

Surface Area

315,000 ft<sup>2</sup> (29,264 m<sup>2</sup>)

Problem

After commencing works, the project team began facing delays in productivity schedule due to difficulties in removing 30 mils of coating from the large tank using a traditional slag abrasive.

#### Result

The project team switched to GMA ToughBlast™ for blasting a large water tank in California. This resulted in:

Reduced Abrasive Consumption	GMA ToughBlast™ required four times less abrasive than Coal Slag.
Cost Reduction	Operational costs decreased by 42.2%.
Increased Productivity	Productivity doubled, with blasting coverage increasing to 150 sqft/hr.
Improved Safety	Dust levels were cut by 70%, enhancing worker safety and environmental conditions.

The calculator highlighted the significant cost savings and operational benefits of the decision. In determining the solution, some assumptions were developed to provide a comparative but thorough investigation of the total project cost through GMA's TruCost Calculator. The data entered into the calculator was, as follows:

Product Costs Summary	Estimate Costs
Blasting time	8 hours daily, 1 hour clean-up and 1 hour downtime
Labor	5 blasters, 3 support crew
Costs	Labor \$75/hr, Equipment \$100/hr, Transport Costs, \$50/tonne
Cleanup & Disposal	3 tonnes cleanup per hour, \$44 per tonne disposal

<sup>\*</sup> Please note this is generic information; for increased accuracy and detailed guidance, consult with GMA for more information.

# Using GMA ToughBlast™



PRODUCTIVITY

100% or 150 ft<sup>2</sup> per hour more efficient



TOTAL PROJECT COSTS

\$856,340 or 42.2% savings



CONSUMPTION

71.4% or 2,143 tonnes less abrasive



LABOR

4,200 hours less labor

52.5 days savings

# Why is GMA Garnet<sup>™</sup> 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 reduces 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.

### **Project Costs**

Product Costs Summary	GMA ToughBlast™	Black Beauty Fine
Labor Cost	\$315,000	\$630,000
Material Costs	\$589,680	\$807,030
Equipment Costs	\$210,000	\$420,000
Disposal Costs	\$57,408	\$171,398
Total Costs	\$1,172,088	\$2,028,428
Costs per day	\$22,325	\$19,318

#### **Costs Summary**



## **Project Resources**

Product Resources Summary	GMA ToughBlast™	Black Beauty Fine
Total Blasting Area	315,000ft <sup>2</sup>	315,000ft <sup>2</sup>
Total Blasting Hours	2,100 hr	4,200 hr
Total Labour Hours	4,200 hr	8,400 hr
Productivity	150.0 ft²/hr	75.0 ft²/hr
Consumption	6.0 lbs/ft²	21.0 lbs/ft²
Days On Site	52.5 days	105.0 days
Abrasive Materials Consumed	857.29 Tonnes	3,000.52 Tonnes
Total Project Cost Per ft <sup>2</sup>	\$3.72	\$6.44

#### Labor Costs/Days Required

Using GMA ToughBlast on this job would potentially save \$315,000 when compared to Black Beauty Fine and take 52.5 days, which is 50% or a 52.5 day labor saving.

