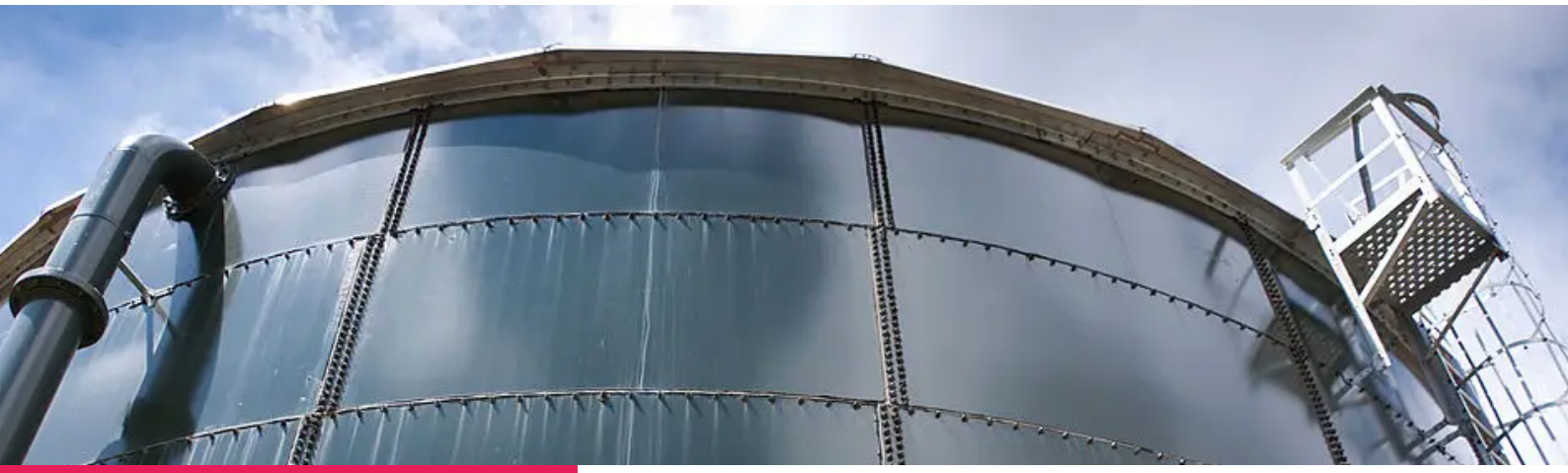
CASE STUDY

# Enhancing Efficiency and Reducing Costs with GMA ToughBlast™



## Job Overview

| | |
|---|---|
| **Project** | Blasting a five million gallon (18.9 mil litres) ground storage water tank |
| **Location** | Water Treatment Plant, California, USA |
| **Challenge** | Delays due to difficulty in removing 30 mils (762 µm) of coating using traditional slag abrasive. |
| **Surface Area** | 315,000 ft² (29,264 m²) |
| **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 |

** 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 ft²**
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™ 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.

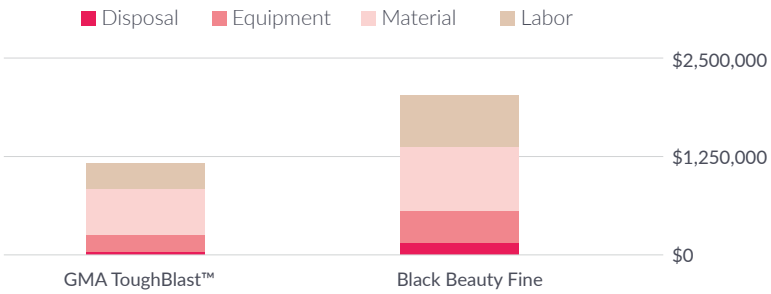
**Sustainable resource**
Our garnet recovery programs present a cost-effective and environmentally responsible solution for used garnet disposal, with GMA garnet capable of being reprocessed up to five times.



## 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$^2$ | 315,000ft$^2$ |
| Total Blasting Hours | 2,100 hr | 4,200 hr |
| Total Labour Hours | 4,200 hr | 8,400 hr |
| Productivity | 150.0 ft$^2$/hr | 75.0 ft$^2$/hr |
| Consumption | 6.0 lbs/ft$^2$ | 21.0 lbs/ft$^2$ |
| Days On Site | 52.5 days | 105.0 days |
| Abrasive Materials Consumed | 857.29 Tonnes | 3,000.52 Tonnes |
| Total Project Cost Per ft$^2$ | $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.