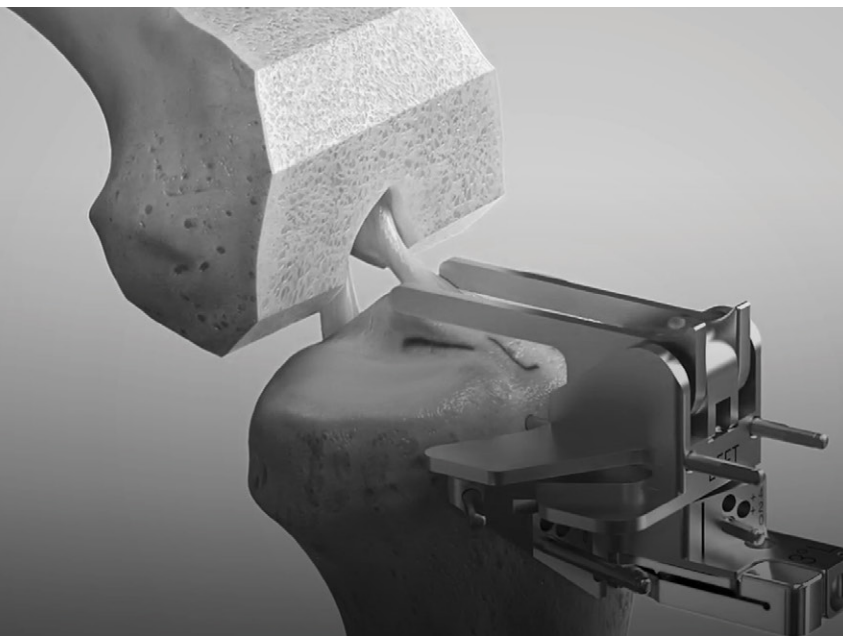




CASE STUDY

Medical Equipment



At a Glance

Client:	Smith & Nephew
Location:	Memphis, Tennessee, USA
Application:	Medical equipment
Product:	GMA ClassicCut™ 80
Productivity:	60% less maintenance and downtime
Cost Savings:	50% less spending on highpressure pump components and avoiding a \$40,000 filtration system replacement

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Clear-cut Progress

How a Leading Medical Equipment Manufacturer Slashed Downtime by 60% — and Minimized Costly Equipment Replacements — With GMA ClassicCut™ 80

Challenge

With a history dating back 160 years, Smith & Nephew is a trusted name in global medical equipment manufacturing. The company specializes in products for advanced wound management, trauma and clinical therapy, and orthopedic reconstruction — all of which demand the most stringent safety and manufacturing standards. Waterjet cutting is key to the Smith & Nephew manufacturing process, and the company partners with OMAX for its machinery.

Throughout their decade-long partnership, Smith & Nephew and OMAX have collaborated closely on equipment layout and design. When issues with water filtration were brought to the attention of OMAX,

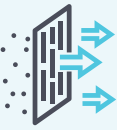
their team identified that poor quality garnet could be the source of the problems. Prior to the issues, garnet shortages shook the market. Like many industrial manufacturers, Smith & Nephew saw the quality of its supplier's garnet change seemingly overnight. The Chinese garnet contained ultra-fine particles, which clogged the filters in its closed-loop water filtration system. The result? Higher consumable costs and significantly more downtime.

OMAX was determined to help its client eliminate its water filtration issues and reduce maintenance downtime. It enlisted GMA to deliver a solution. We were ready to illustrate the concrete value of switching to GMA Garnet™ — and its ability to meet the client's stringent manufacturing standards.

Case Study: Medical Equipment



More production
and less costs



75%
Reduction in filter
change costs



50%
Reduction in pressure
pump costs



60%
Reduction in
maintenance downtime



On Site Evaluation

After discussing the client's application and proposing GMA ClassicCut™ 80 from our line of waterjet abrasives, we met on-site to discuss how to solve these particular challenges. A simple turbidity test was conducted with GMA ClassicCut™ 80, the client's Chinese garnet and three other common garnets. This measures how much dust is included in the bag with the garnet.

GMA ClassicCut™ 80 delivered the lowest dust levels (turbidity). It produced the cleanest water of any garnet tested. After witnessing the results, Smith & Nephew gave the go-ahead to run a full off-site validation for GMA ClassicCut™ 80.

Off-Site Validation

The most effective, objective way to illustrate an abrasive's performance is through a full-scale trial. To further demonstrate the results of our on-site test, we designed a trial using precise waterjet specifications from Smith & Nephew. The results were as clear as the water in the turbidity test: GMA ClassicCut™ 80 delivered superior cutting performance, enhanced edge quality, and resolved the water recycling issues that had long prevented peak productivity.

Results

By making the move to GMA ClassicCut™ 80, Smith & Nephew reduced its filter and high-pressure pump component purchases by 75% and 50%, respectively. Previously, filters needed changing every two to three days, but since the switch, the filters last three to four weeks. In addition to lower consumable costs, GMA Garnet™ also decreased maintenance and downtime by 60%.

And the savings don't stop there. Determining that a low-performing, inconsistently-sized abrasive created the filtration issues eliminated the need for Smith & Nephew to purchase a new filtration system, saving \$40,000 in replacement costs.



Secure
Supply



Consistent
Quality



Technical
Expertise



Customer
Focus



Abrasive
Blasting



Waterjet
Cutting



Recycling

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