

S-Complex™



CASE STUDY : Pazzi Marble and Granite Melbourne - October 2019

PROJECT: Prussiani Cut and Jet - Trial
PLACE: 31 Geddes St, Mulgrave VIC 3170
DATE: October 2019
COMPANY: Pazzi Marble and Granite
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Client:

Pazzi Marble and Granite

Pazzi Marble and Granite are a premier fabricator of stone, quartz and sintered stone, with state of the art, saws, water jet, milling and polishing machines.

Pazzi also has a full recycling system using a flocculent, coagulant and cake press.

Project requirements:

1. Increase cutting speed of bridge saw on Prussiani Cut and Jet unit.
2. Increase cutting speed, milling speed and ability to mill very hard stones on Unica 5 Bridge Saw and CNC machine.
3. Increase cutting speed on super hard materials such as Dekton™ and Neolith sintered stones.
4. Cleaner cutting, especially porcelains and sintered stones which need perfect cuts for clean mitre joints.

CHEMFORCE Solution:

1. The Prussiani machine has a separate water supply system while the Unica machine uses water from the main recycling system pictured above.
2. Dema MixRite 2.5 (0.4-4%) dosing pumps were inserted into the water supply feeding both the Prussiani and Unica Bridge saws. This enables trialing of the S-Complex™ without dosing the entire recycling system.
3. After the trial, the dosing pumps were left running until enough S-Complex™ was introduced to dose each water system fully.
4. Trials started at under 1% and this was increased on the dosing pump until optimal performance was reached at 1.5%
5. The S-Complex™ recycles with the water – a small amount is lost with the filtered grounds each day. Every approximately 6-10 weeks the dosing pumps are turned back on until the system is re-dosed.

Results:

1. Increased cutting speed of 2 to 4 times, depending on material being processed.
2. Cleaner cutting of the very hard Dekton™ sintered stone. An unexpected and welcome side result was a massive reduction in saw noise.
3. CNC milling of large, very hard stones without manual drilling.
4. S-Complex™ did not affect the performance of flocculants and anti-flocculants in the recycling / filtration system.
5. NOTE: At levels of S-Complex above 1% it may be necessary to use Rache NC-7 Anti-Foam to knock down foam caused by S-Complex™ for the first 3-4 days, after which the foam subsides.



Prussiani Cut and Jet



Unica 5 Bridge Saw and CNC

- + Improved our productivity by around over 400%
- + Cleaner cuts, less chipping



Dema MixRite 2.5 (0.4 to 4%). Super accurate dosing pump, operates using the pressure from the water input. Handles up to 2,500 Litres per hour water flow. Input from S-Complex™ can be set in 0.1% increments from 0.4% upto 4%

Testimonial:

I am writing to express my gratitude to you and to say a huge thank you on behalf of my team and me. You have been incredibly helpful and informative. You have helped my team better understand cutting and how your compound improves the life and performance of the diamonds.

Since we have been using the S-Complex on our saws 3 months ago, we have seen a huge increase in production, cleaner cuts and as a result, we no longer dread cutting ultra-compact and sintered slabs because all of the chipping and cracking issues have been resolved. We are also amazed that by adding the compound it has significantly reduced the noise from cutting these super hard products.

I would certainly recommend this product to any stone fabricator and happy to be a reference for you if your customers have any questions.

Thanks again for your help and fantastic work developing a great product that delivers optimal results.

Amadeus Ruffilli-Schipperheyn
Managing Director
www.pazzi.com.au