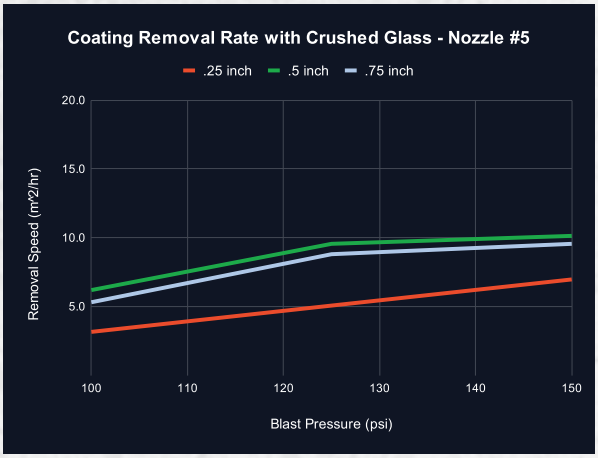
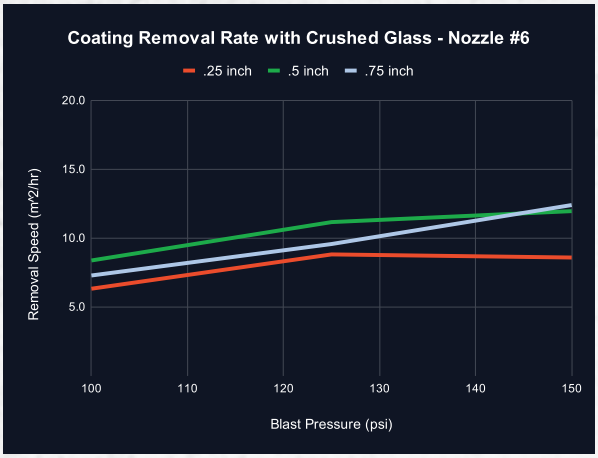
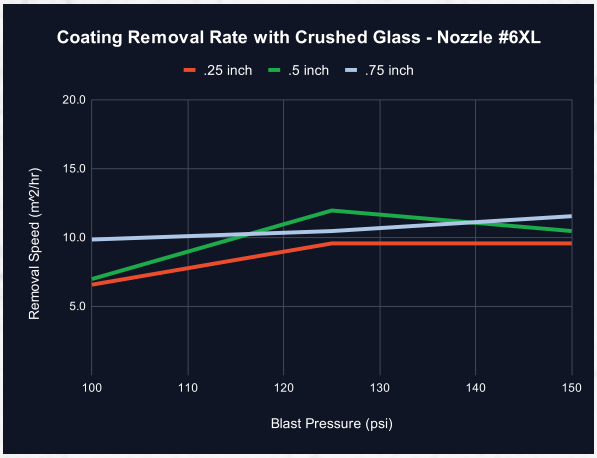
EPOXY REMOVAL TESTS

Using different combinations of abrasive type, blast pressure, media flow, and blast nozzle, the times required to remove 1ft² of coating were measured.







COMPRESSOR: Rotair 185CFM

ABRASIVE: Crushed Glass 70/40 and Copper Slag

ABRASIVE FLOW: 0.25in, 0.5in and 0.75in

BLAST PRESSURE: 100, 125 and 150 psi

NOZZLES: SLV #5, SLV #6, #6XL

CRUSHED GLASS TESTS (WET)

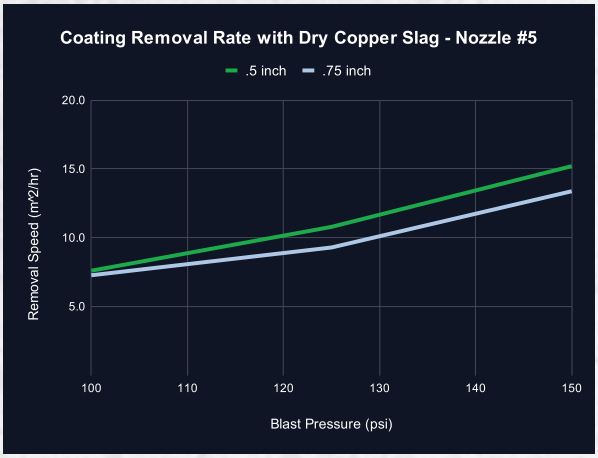
The performance of crushed glass is well known. Tests show abrasion speed ranges between **6 and 15 m²/hr.**

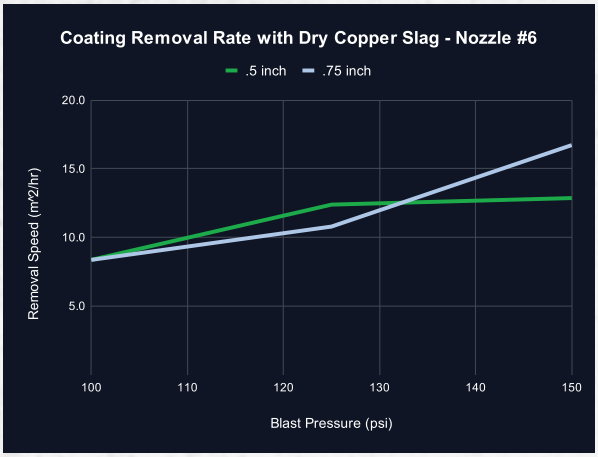
The results show that there does not appear to be a significant increase in abrasion rate with increasing pressure above 125 psi. Especially for the case of the #5 nozzle. However, in the case of nozzle #6, this phenomenon seems to be caused by a significant drawdown in hopper pressure during the experiment due to the inability of the 185CFM compressor to maintain the required flow for nozzles #6 and larger.

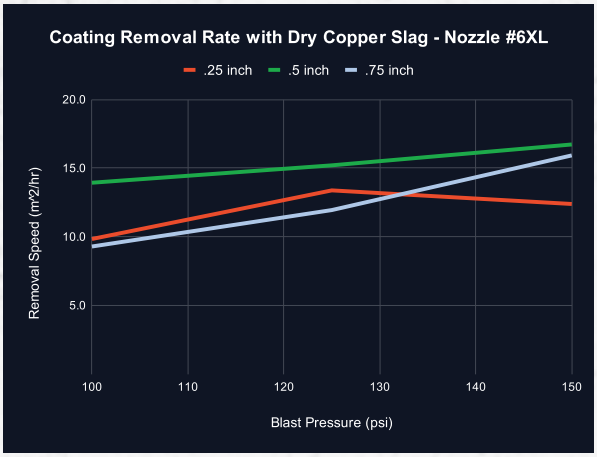
Additionally, in all tests, **the 0.5-inch opening on the abrasive inlet nozzle was the most efficient**: it not only consumes less abrasive than the 0.75-inch opening, it also provides higher abrasion speeds of between 9 and 12 percent on average.

EPOXY REMOVAL TESTS

Using different combinations of abrasive type, blast pressure, media flow, and blast nozzle, the times required to remove 1ft² of coating were measured.







COMPRESSOR: Rotair 185CFM

ABRASIVE: Crushed Glass 70/40 and Copper Slag

ABRASIVE FLOW: 0.25in, 0.5in and 0.75in

BLAST PRESSURE: 100, 125 and 150 psi

NOZZLES: SLV #5, SLV #6, #6XL

COPPER SLAG TESTS (DRY)

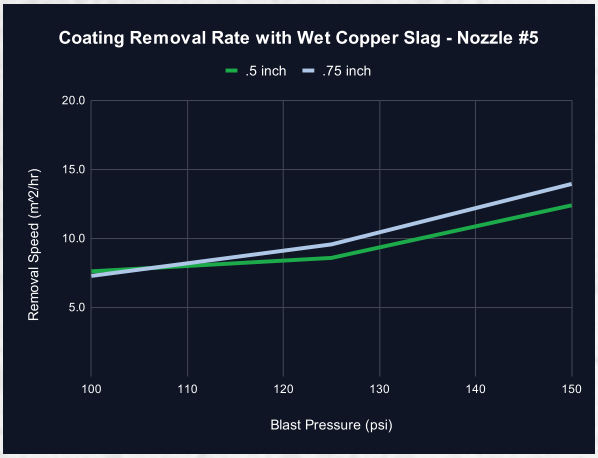
These tests were performed to validate that the customer's suggested abrasion speeds were achievable under conditions similar to those used by the customer. The results suggest that **the use of 0.5 inch abrasive inlet nozzle opening performs better than larger areas.**

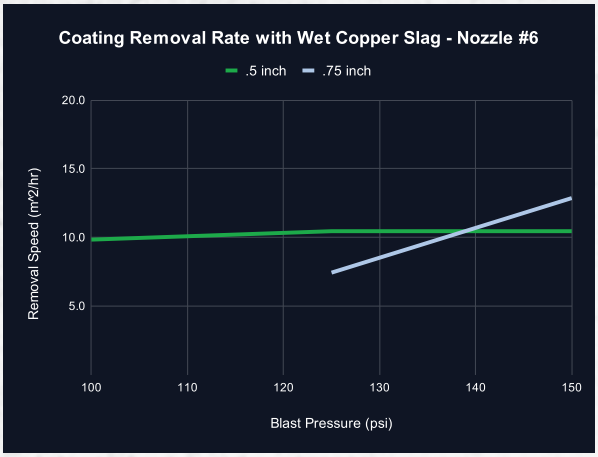
In general, results at 150psi are partly better however, during testing at 150psi with #6 nozzles, the pressure drop across the hopper was noticeable due to the inability of the compressor to maintain the flow with areas larger than that of the #5 nozzle.

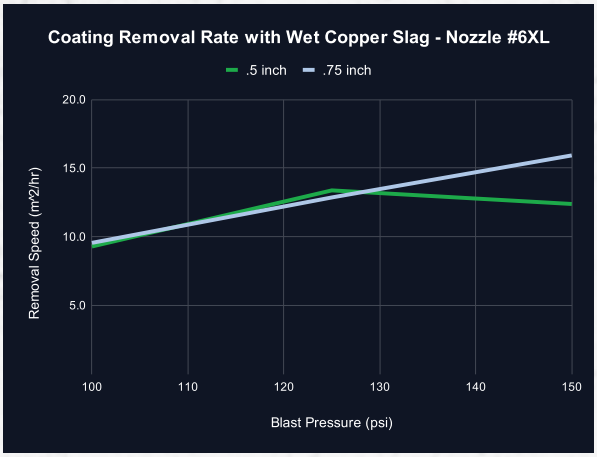
For experiments conducted at 125psi, the average abrasion speed was **11 m² / hr.**

EPOXY REMOVAL TESTS

Using different combinations of abrasive type, blast pressure, media flow, and blast nozzle, the times required to remove 1ft² of coating were measured.







COMPRESSOR: Rotair 185CFM

ABRASIVE: Ground Glass 70/40 and Copper Slag

ABRASIVE FLOW: 0.25in, 0.5in and 0.75in

BLAST PRESSURE: 100, 125 and 150 psi

NOZZLES: SLV #5, SLV #6, #6XL

COPPER SLAG TESTS (WET)

The tests with Copper Slag, in the case of the #5 and #6 nozzles, were only carried out with internal nozzle openings of 0.5in and 0.75in since the 0.25in configuration presented many inconsistencies in the flow of abrasive material.

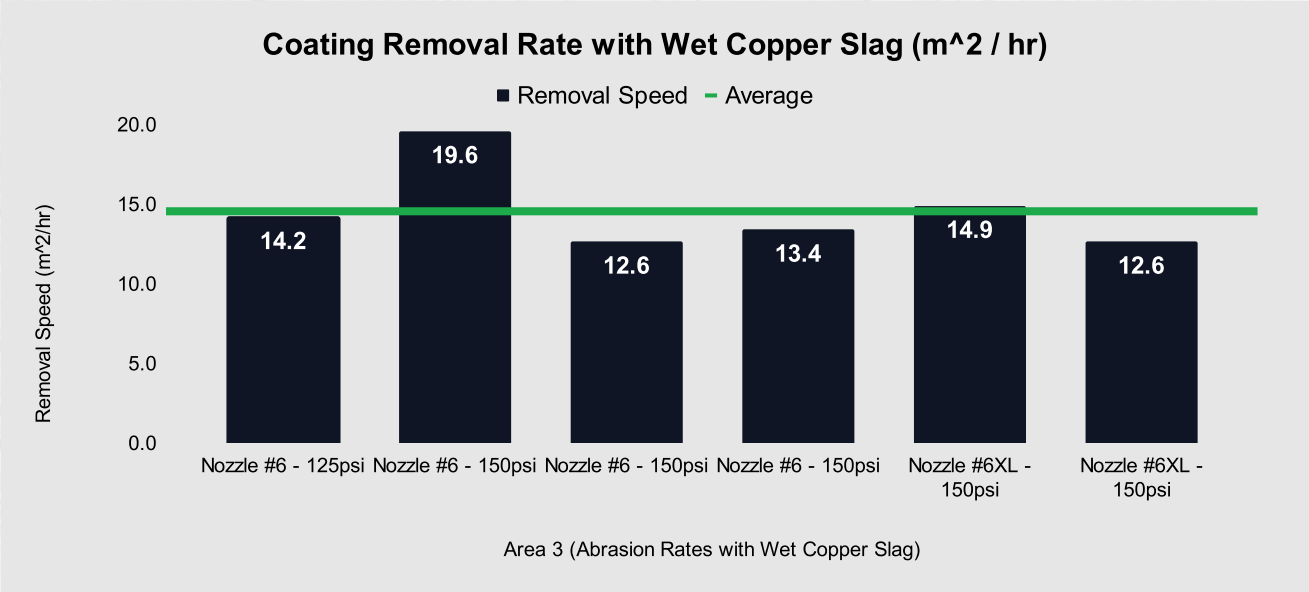
The abrasion speeds were found to be **between 7 and 15 m²/hr.**

Similar to the previous experiment, tests conducted at 150 psi with #6 and #6XL tips showed high initial velocities and hopper drawdown due to insufficient compressor capacity of 185CFM to maintain flow and pressure. pressure required for that nozzle diameter.

In these experiments also the lower flow of abrasive (0.5in vs. 0.75in at the abrasion nozzle) produced better results. At least in the case of wet blasting **the results suggest that pumping excess abrasive is counterproductive.**

EPOXY REMOVAL TESTS

For this final test, 6 tests were carried out with Wet Copper Slag. Each of the tests consisted of 1m² area with effective working pressures of 125 psi and 150 psi.



COMPRESSOR: ANA 350 CFM

ABRASIVE: Wet Copper Slag

ABRASIVE FLOW: 0.25in, 0.5in and 0.75in

BLAST PRESSURE: 125 and 150 psi

NOZZLES: SLV #5, SLV #6, #6XL

COPPER SLAG TESTS (WET)

The average speed throughout the tests was 14.5 m²/hr with a minimum of 12.6 m²/hr, **the tests are conclusive generating abrasion speeds greater than 11m²/hr**(the customer's average dry removal rate).

The consumption of copper slag in this test was 15.2 kg/m² (215 Kg/hr), for a total consumption of 200 lbs. in all area 3 tests.

Our main takeaway from these experiments is that wet blasting with copper slag (the customer's abrasive of choice) is significantly speedier than dry blasting. **Therefore, the tremendous advantage of transitioning their equipment line to dustless blasting cannot be emphasized enough,** as its not only faster, but also suppresses dust, enabling nearby workers to carry on with their tasks uninterrupted.

GET STARTED TODAY

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CONTACT US

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TAKE OUR QUIZ

We'll help you find the right machine for your needs and budget.