

LARGE POWDER COATER NEW SOUTH WALES, AUSTRALIA



PROJECT BACKGROUND


As one of the largest powder coating companies in central NSW, this client's high standard powder coating finish ensures that fabricated steel products can withstand years of outdoor exposure and usage. They offer abrasive blasting, zinc powder priming and powder coating services.


With the launch of BlastOne's new SnakeBite nozzle, a large powder coating company wanted to test its efficiency. Together, we hosted a trial comparing a #7 BlastOne Ultra Tuff nozzle to the new SnakeBite Strike #10 nozzle. The trials focused on production rate and noise level. Additionally, abrasive consumption rates were also calculated to showcase overall cost.

 **Generate considerable savings in production costs**

 **Minimize overall dB levels**

 **Increase production capacity**

 **Ability to complete original project deadlines on-time**

 **Achieve specified surface cleanliness & roughness standards**

 **Reduce abrasive consumption**

WHY CHOOSE SNAKEBITE

SnakeBite Strike is the highest productivity hand-held blast nozzle on the market. It achieves over 50% more production than high performance #8 nozzles. Additionally, the Strike is up to 75% quieter than standard nozzles, reducing noise by up to 16 dBA.

Safe hand-held blasting has been limited to a #8 nozzle. This also limits productivity to that of the #8 nozzle - there hasn't been a product in the market that can offer a step change to this level of productivity.

If you've got acres of steel to blast – it could be tanks, bridge beams or ship hulls – this is the nozzle for you!



RESULTS

BlastOne and the powder coating company conducted a study to determine whether the SnakeBite would reduce blasting noise without reducing productivity. Blasting a bin with large sides, no coating, here is how the #7 Ultra Tuff compared to the SnakeBite Strike:

TEST RESULTS

Nozzle	Nozzle Pressure	Test Area	Blast Time	Blasting Speed	Sound Reading
#7 Ultra Tuff*	115 psi	1 m ²	65 s	55 m ² /hr	106 dBA
SnakeBite Strike	102 psi	1 m ²	43 s	83 m ² /hr	98 dBA

*The Ultra Tuff Nozzle was worn close to a #8 nozzle.

(Equipment used: 10 cu ft. Schmidt Blast Pot, 2 x 75 kW 450 cfm compressors, 1 x 20 m 32mm ID Blast Hose, GMA Premium Blast Recycled Garnet)

Unfortunately, at the time, no sound readings were taken from further away, outside of the blast room. The difference in noise is even more obvious when you move further away.

Using the True Cost Abrasive Blasting Formula, we calculated the amount of abrasive used per square metre by each nozzle.

CONSUMPTION RATES

Nozzle	Consumption Rate	Abrasive Purchase Cost Delivered	Abrasive Disposal Cost	Labor and Equipment Cost	Production Rate	Blasting Costs
#7 Ultra Tuff	.48 t/hr	\$695/t	\$50/t	\$150/hr	55 m ² /hr	\$9.23 per m ²
SnakeBite Strike	.48 t/hr	\$695/t	\$50/t	\$150/hr	88 m ² /hr	\$5.77 per m ²



CONCLUSION

Our estimates show that the SnakeBite Strike is not only quieter than the #7 Ultra but its high productivity results in 37% less abrasive used per square metre. Over 1000 square metres, that is \$3,460 back in your pocket! Almost covering the cost of the initial investment.

Blasting speed increased by 51% which is more than a day's extra blasting each week.

Sound level was almost halved, which improved the surrounding environment for nearby workers and prevented disrupting workflows. While the SnakeBite Strike was in action, the noise was significantly reduced and a normal conversation (80dBA) could happen during blasting.

The SnakeBite Strike achieves over 50% more production than high performance #8 nozzles. The only #10 nozzle in the market that can be used for hand-held blasting for extended periods of time.

NOISE REDUCTION

SnakeBite Strike reduced noise levels by 16dBA. That's equivalent to more than 75% quieter than standard nozzles and the typical high pitched screech is now gone.

PROJECT TIMELINES

SnakeBite Strike is the highest productivity hand-held blast nozzle on the market. Reduce your overall blasting time on projects while increasing your profits.

EASE OF USE

The unique design of nozzle and silencer reduces operator fatigue by up to 45%. Operators can better maneuver the nozzle and will be less fatigued over the shift.