



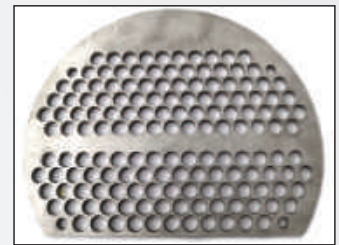
## The Odds Aren't Stacked Against You.

Our customer, who manufactures baffle plates for the military and defense industry, needed to reach at least 100 IPM (2450 mm/min) while drilling through five plates tack welded together that are each 1/2" (12.7 mm) thick.

With 10,000 holes per stack plate assembly, the customer needed to produce a tight tolerance hole with a 32 Ra finish consistently through all five plates. The competition was running at 95 IPM (2413 mm/min) and only achieving a 63 Ra surface finish.

This customer reached out to Allied for help in achieving the results they needed. Using the cast aluminum (CAB) **Superion burnishing drill**—developed with a unique point, web, and cutting edge to significantly improve hole finish and tolerance—the customer was able to achieve the desired surface finish and tolerance while running over 100 IPM (2450 mm/min).

In addition to achieved surface finish and penetration results, the Superior drill also dramatically increased the tool life from 2000 holes to 10,000 holes—a 400% increase. With Allied, the odds will never be stacked against you. **Call us to help you find the right tool for the job.**



		Measure	Competitor Drill	Superion Drill
<b>Product:</b>	Superion CAB burnishing drill			
<b>Objective:</b>	Increase penetration rate	RPM	10,186	12,000
<b>Industry:</b>	Military/ defense	Speed	750 SFM (228.6 m/min)	1000 SFM (304.8 m/min)
<b>Part:</b>	Baffle plates	Feed Rate	0.01 IPR (0.254 mm/rev)	0.008 IPR (0.203 mm/rev)
<b>Material:</b>	Wrought aluminum alloy (22 RC)	Penetration Rate	95 IPM (2413 mm/min)	101.86 IPM (2587 mm/min)
<b>Hole Ø:</b>	0.3" (7.62 mm)	Cycle Time	21.57 sec	21.47 sec
<b>Hole Depth:</b>	2.5" (63.5 mm)	Tool Life	2000 holes	10,000 holes
<b>Tolerance:</b>	+ 0.008" (0.2 mm)			
<b>Surface Finish:</b>	32 Ra			

▶ Superior CAB Burnishing Drill  
Item No. 210520-9

400%  
increase in tool life



The Superior solid carbide drill provided:

- ✓ Increased penetration rate
- ✓ Decreased cycle time
- ✓ Improved surface finish
- ✓ Lower cost per hole

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