

# ROCHESTER ABRASIVES INDUSTRIES [RAI] DEVELOPS A "CUTTING-EDGE" DRILL POINTING WHEEL FOR DRILL MANUFACTURER

## DRILL POINTING APPLICATION

Drill Diameters: 1/64" to 3/8"

Material: HSS

Hardness: 60 RC

Equipment: Winslow

## CHALLENGE

The client's main goal was to increase the number of pieces sharpened in between dresses. If the client increased the number of pieces per dress, the productivity and wheel life could be dramatically improved. Every time a pointing wheel is dressed, .002" to .004" of the wheel is removed with the diamond dresser. Over the life of the wheel this can be a substantial amount when one considers diamond cost, the amount of wheel that is wasted by dressing, the production time lost during the dressing process, the increased frequency of stopping the machine to change the wheel and the increased frequency for inspection. These risks had to be avoided in the solution RAI provided the client.

Additional challenges included:

- Wheel costs were increasing due to excessive dressing.
- Different materials presented challenges for the old processes.
- Leaning out and cost cutting were becoming more important, and the company aimed to review not just the process but also the overall operation.

## PROJECT OBJECTIVES

The two objectives were to evaluate different wheels and to pursue products that both cut costs in the process and improved the operation. The company had to find a partner that could help it resolve all challenges and meet each objective quickly, efficiently, and economically.

RAI was selected based on its years of experience in this area. The testing of RAI's plastic wheels brought about results that achieved significant progress. Wheel dressing went from 36 pieces to 84 pieces on the average for drills in the smaller half of the spectrum. For the bigger drills the improvement went from 24 to 42. One unexpected discovery was the swarf from grinding when the plastic wheels did not foam as much as the other wheels. In addition the finish was much smoother than that of the competition and in the long run RAI actually produced wheels with coarser grains. This allowed the client to reduce cycle times by 15%, maintain acceptable finishes, extend life in between dresses, and clean up the process by reducing the foaming and spillage around the equipment.

## SOLUTION

RAI tested a proven solution that has long been in the drill industry. The company enhanced the plastic technology as the testing progressed and came up with a solution using specialty abrasive combinations. This is offered on both the 12- and 20-inch wheel for the Winslow grinder.

## ABOUT ROCHESTER ABRASIVES INDUSTRIES

Rochester Abrasives Industries (RAI) is a leader in providing high-quality, cutting-edge grinding wheels, grinding segments, and abrasive products for many industries including cutlery and industrial knives. RAI's 20+ year track record of providing innovative, reliable products and unmatched customer service has helped establish the company as a leader in the domestic and international marketplace. We offer standard pre-made products as well as custom formulations and product solutions. We not only focus on the needs of today, we also proactively help customers plan for tomorrow. For more information about RAI, visit [www.rochesterabrasives.com](http://www.rochesterabrasives.com) or call 800.724.9874 or 585.429.5240.

