

GENERAL

Fabricators and manufacturers in this space regularly work with cold rolled steel where appearance is crucial to the final product. Businesses that make lawn tractors, mowing equipment, and sporting vehicles will also work with a substantial amount of sheet metal. On average, abrasives are consumed quickly in these spaces for weld removal.

Finished goods and their appearance are a significant factor. Visible welds contribute a great deal to the overall aesthetics of the product. To provide a seamless appearance, all welds are removed to a minimum of a 150-grit finish before moving onto the painting booth. Pending the application; flap discs, resin fiber discs, PSAs, quick-loks, belts, and even surface conditioning material may be suitable for use.

APPLICATION

As you observe weld removal applications, it is most common to see Resin Fibre Discs and Flap Discs used for very specific reasons. Most fabricators will use 24 and 36 grit Resin Fibre Discs or 40 grit and above Flap Discs. Resin Fibre Discs will cut much faster and work well on contoured parts. Flap Discs have a much lower cut rate, but provide a better finish with longer life. Flap Discs are typically used on smaller, visible welds where finish is a concern.

SOLUTION

Our lab results can easily be reflected in our field results. 40 Grit PREDATOR™, Hard Edge Discs provide a substantial cut rate and life increase over competitors. The specific blend of our PREDATOR™ material gives way to excellent per gram removal properties on mild steel. The best results have been seen when using 40 and 50 grit for fast weld removal and extended life. In conclusion, any mild steel fabricator can benefit from using PREDATOR™ Flap Discs.



TEST NO.
258

Mild Steel

Stainless Steel

Aluminum

Titanium

Quick-Lok Disc

Resin Fibre Disc

Flap Disc

PSA Disc

Belt

Testing PREDATOR™ flap discs against current offerings from an international distributor of industrial, safety and fastener products.

ARC PRODUCTS

- 71-10824AF** 4-1/2 x 7/8" PREDATOR™ Flap Disc, 40 Grit
- 71-10825AF** 4-1/2 x 7/8" PREDATOR™ Flap Disc, 60 Grit

COMPETITIVE PRODUCTS

4-1/2 x 7/8" zirconia alumina, ceramic or mixed material flap discs from three manufacturers.

TEST METHOD

Tests were performed using an automated test machine powered by a flex shaft motor running at 14,400 RPM for 40 minutes, or until the product ceased to cut. Ten pieces of 12 x 2 x 1/4" mild steel were used, each weighed every minute of the test to determine cut rate.

CONCLUSION

Against the five manufacturers tested, PREDATOR™ flap discs provided the highest performance, in both 40 and 60 grits, by a margin of at least 11%.

