

EXTREME BY JACOB WHITE **[CYLINDER]** **MAKEOVER**

**IS YOUR ENGINE
DOWN ON ITS LUCK?
WE'RE HERE TO HELP**

ANYTHING MECHANICAL can and will fail. It just stinks when it happens on your sled in the middle of the best riding of the season.

A little too much heat, not enough lubrication, a lean spot in the rpm range, all of these problems will eventually lead to a scorched or seized piston and cylinder. So what do you do when a cylinder and piston get a little too friendly with each other?

The folks at Millennium Technologies of Plymouth, WI, came to our rescue when that exact situation came up for us this past season. With the cost of replacement cylinders and the usual, "We'd have to order it in," comments from the parts guy, we needed a fix and we needed it quick. Millennium stepped up to fill the order and replated our scorched cylinder walls with their



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newest nickel silicon carbide composite plating.

When it was all said and done we had a cylinder that was in better shape than it was new.

What exactly is nickel silicon carbide (NCS) you ask? Millennium Technologies describes it as a composite made up of very fine nickel and silicon carbide particles evenly dispersed to form a coating in the cylinder, making for a very strong and durable liner for the piston to slide against. Silicon carbide is used in the process because of the very fine and consistent particle size



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as well as its hardness. Another main reason to use silicon carbide is because of its oleoific characteristics. That simply means it has a natural tendency to absorb oil, which helps retain the oil in the cylinders.

Millennium uses electroplating to adhere the coating to the aluminum walls of the cylinder, making for a permanent bond that's actually stronger than the actual aluminum. Due to the hardness of the new coating, the honing process is a little different than most out there. Diamonds are used in the initial honing because they are the only material strong enough to smooth out the nickel silicon carbide. Special honing tools and machines are used to bring the honed cylinders into within .00025 inch tolerances.

Millennium prides itself on having the best quality in the industry and anything less than perfection just isn't acceptable. They are so confident in their product that their replating service is backed with a lifetime warranty.

Average cylinder replating runs anywhere from \$190-\$250. When you consider that an OEM replacement cylinder for a 600 Rotax is around \$540 you can see why replating may be your best and most cost-effective option.

If your motor is in need of replating contact Millennium Technologies at (920) 893-5595 or visit www.mit-llc.com.

