



PROBLEM

Cylinders in an aluminum casting plant were failing after only two to four weeks of operation.



SOLUTION

DNC Hydraulics and its preferred seal provider optimized the cylinder by redesigning the seal package and upgrading the seal material.

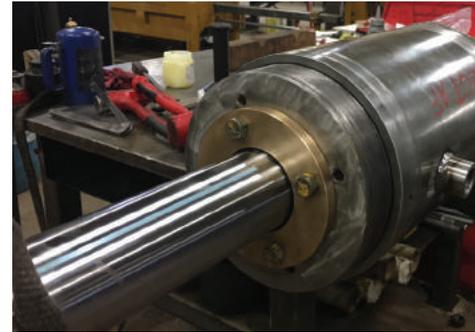


RESULTS

The lifespan of the cylinders was extended to six to twelve months, saving the plant more than \$1 million per year in repair costs, uptime and oil.

How DNC Hydraulics Saved an Aluminum Casting Company \$1 million Per Year

When DNC Hydraulics began working with a wheel manufacturer in western Ohio, they were surprised to learn that the lifespan of the casting cylinders was less than a month.



Casting automobile wheels from molten aluminum is a volatile process. The equipment is exposed to aggressive conditions, high heat and extreme pressures. The manufacturer was forced to replace the cylinders every two to four weeks.

To address the concern, DNC closely analyzed the full scope of operating parameters, including pressures, temperatures and fluids. They also examined how those specifications matched the application. Working with their preferred seal provider, DNC incorporated new bearing algorithms that optimized the cylinder performance and enabled engineers to redesign the sealing package.

The team then upgraded the seal material to a high-performance elastomer designed to withstand the plant's extreme environment. The process nearly eliminated oil leaks. It tightened the tolerances and significantly extended the life of the cylinders.

Now with a cylinder lifespan of six to twelve months, DNC Hydraulics saved the wheel manufacturer more than \$700,000 per year in repair costs. That savings was pushed passed \$1 million after calculating downtime, internal labor and lost oil.

DNC HYDRAULICS



DNC Hydraulics is committed to optimizing the longevity and performance of all cylinders that it services and repairs. Our driving goal is to help maximize uptime for all our customers.

The process begins by tearing down each cylinder that enters the shop. An exact estimate is then created, with lead times and detailed descriptions of what should be machined or replaced, as well as the reasons why. All rebuilds include a thorough inspection and full warranty at completion.

Because DNC is on the road every day, pickup and delivery is quick. It plays a critical part of serving emergency, same-day repairs, regardless of the cylinder size. The DNC machine shop provides complete cylinder manufacturing with all new parts. Same-day fabrication on existing designs is critical to further reducing downtime.

DNC also offers an extensive cylinder replication service. Regardless of the size or function of the cylinder, DNC has replicated cylinders from start to finish for major manufacturers, including Williams White, CAT, Iron AX, Genesis Shear, Sennebogen, Liebherr, and Young.

DNC Hydraulics is much more than a cylinder repair shop. Its representatives become partners in every customer's operations, maximizing efficiency and seeking new ways to reduce costs and optimize operations.

