

Townley Has a Large Problem

Since 1963 Townley Engineering & Manufacturing has been developing replacement impellers for the mining industry. Townley has employed traditional measurement techniques to reverse engineer existing parts.

The Challenge

Although their engineering methods have worked over the years, the process is very slow. Inaccuracies in hand measurements, as well as the complexity of impeller vane geometries yield significant amounts of re-work and greatly delayed production of new parts. With the wearing of existing pump molds, and several new parts waiting to be reverse engineered, Townley had a huge challenge.

The Solution

Townley turned to EMS to address this issue. EMS used their Z Corp Z Scanner 800 portable laser scanner to completely scan the impellers and turn them into feature based solids models using RapidForm XOR software. These scanned models could then be directly imported in SolidWorks where they can be fully edited by Townley for manufacturing.

“The real beauty of the Z Scanner is it allowed us to reach in and scan the inside of the pumps”, according to Dan Perreault, a scanning engineer at EMS. “There is no other tool that offers the portability, ease of use and accuracy all in one package like the Z Scanner 800” continues Dan.

Conclusion

Businesses, like Townley, that choose to implement new technology to improve their processes will gain a significant advantage over competitors that continue to chant “that’s the way we’ve always done it”. 3D Scanning helps produce CAD models in days as opposed to weeks, allowing Townley to produce higher quality parts, in less time, ensuring maximum service to their customers.

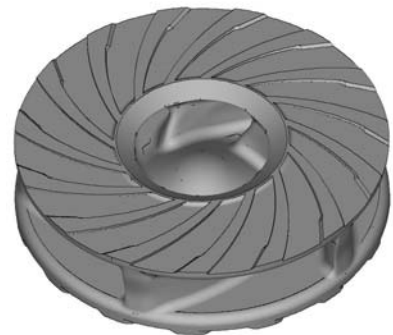
Visit www.ems-usa.com for more information.



Scanning the inside of a large pump impeller with the Z Scanner 800



Scanning the outside of a smaller pump



Finished fully editable feature base solid model