

Volume 9 Issue 2

Rulon® Provides Superior Seal to Ophthalmic Device

Our [engineering team](#) is proud to partner with a major university research facility and surgical device manufacturer in development of an all-new tool used during ophthalmic micro surgery. The device – a rotary vane pump – gives surgeons significantly better precision and control when performing aspirations during cataract surgery.



Discovery and collaboration

Our collaboration with the research teams uncovered some very specific application requirements. We learned that traditional devices including venturi, diaphragm and rotary designs each had noise and vacuum pressure controls that became problematic – and needed to change. We also learned that although the aspiration device would run at fairly low vacuum rates, housing conformance and vane sealability needed to be ensured.

And finally, since the device would be in intimate contact with the eye area during surgery, all components were required to meet proper FDA certification.

Rulon and precision engineering

After careful examination and research, our team ultimately recommended [Rulon® 641](#) for the vane seals. [Rulon® 641](#) is an ideal material because it is FDA compliant, offers a flexible material design and an expansive operating range. And because we offer the largest [Rulon® inventory](#) in the United States, it was also readily available.

Once we had a material selected, our fabrication team employed special machining techniques to ensure a tight tolerance and superior finish to match the bore.

The result? Our clients report that [Rulon® 641](#) vane seals have proven efficient and cost effective – and more importantly – the device allows surgeons better control of vacuum levels and volumetric flow to help ensure better surgical outcomes.

[Contact us](#) to learn more about [Rulon](#), [Ultracomp®](#), [TriSteel™](#), and [CJ bearing](#) materials available to solve your design challenge. Or join the conversation on our [Tech Talk Bearing Blog](#) for the latest industry trends and tips.

We've created "[The TriStar Advantage](#)" with you in mind.



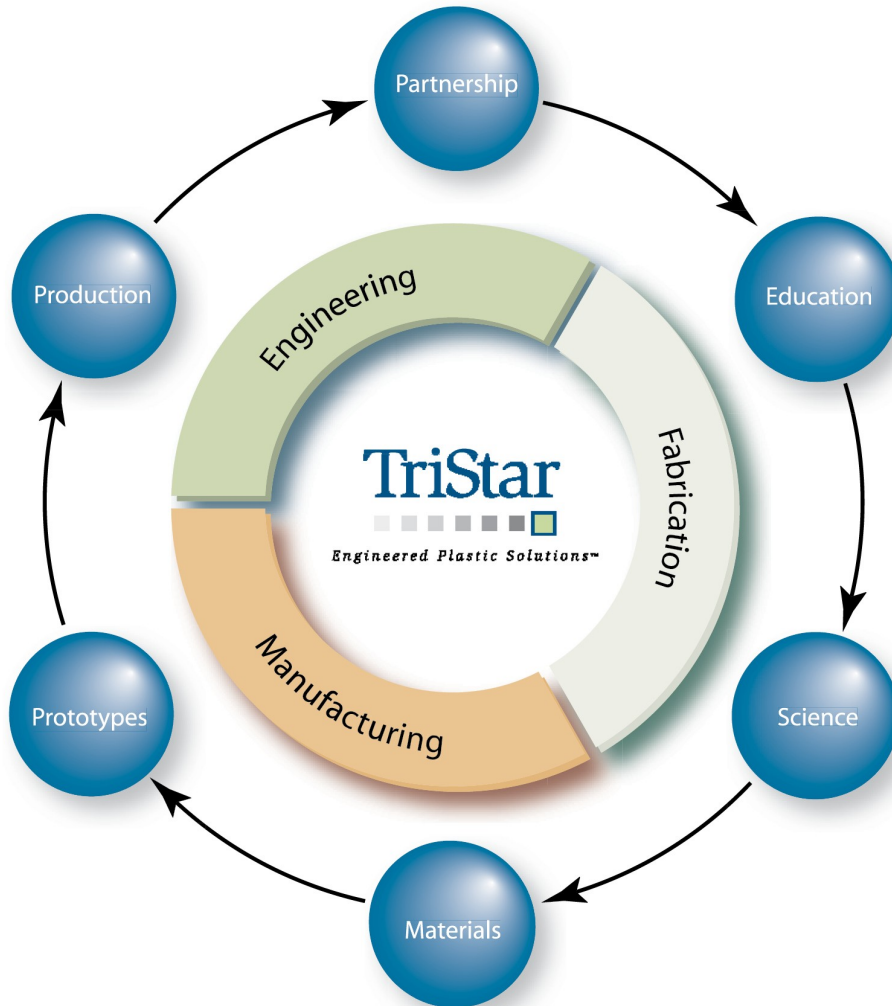
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Since 1982 TriStar has been the in-house engineering resource providing engineering, design assistance, prototyping, custom fabrication, and manufacturing in over 50 industries including:

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- Food
- Marine
- Medical
- Railroad