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A Breath of Fresh Air

May 10, 2019 by Christine Berly

A leading medical device manufacturer faced a difficult challenge: While developing a machine to assist patients with breathing impairments, it was unable to apply an effective seal to the machine's pump (by design, the machine used a pump to generate quick bursts of air, which were directed via a tube into the patient's throat to stimulate a cough reflex).

Incorporating a thin, radial bearing and a flat circular seal, the medical device manufacturer's design produced excessive seal drag that increased the torque to unacceptable levels. They turned to AST for a solution.

After a thorough assessment of the client's needs and the machine's functionality, AST set about developing a viable assembly. While an initial prototype that included an integral flange on the inner ring proved effective, efficient production of the assembly was more elusive.

After additional trial and testing, AST perfected a solution: a two-piece assembly. With active participation in the entire manufacturing process — designing and sourcing the machine flange component, designing the assembling tooling and developing a quality control process — AST delivered a prototype that was both efficient and effective, and its relationship with the medical device company blossomed into a long-term partnership. Learn more about our full complement of [mechanical sub-assemblies](#).

AST's successful collaboration resulted in more than 20,000 assemblies for the client, which it has integrated successfully into its breathing machines. The milestone reflects an unwavering commitment to quality and service, core values for the AST team. And it also represents the successful application of AST's expertise to address some of society's most critical challenges.

Let our team of experts help with your specific needs. [Contact them here](#) or learn more about our expertise in the [medical industry](#).

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