



Senior Metal Bellows Engineering Internship

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*Science, Discovery, and the Universe
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College Park
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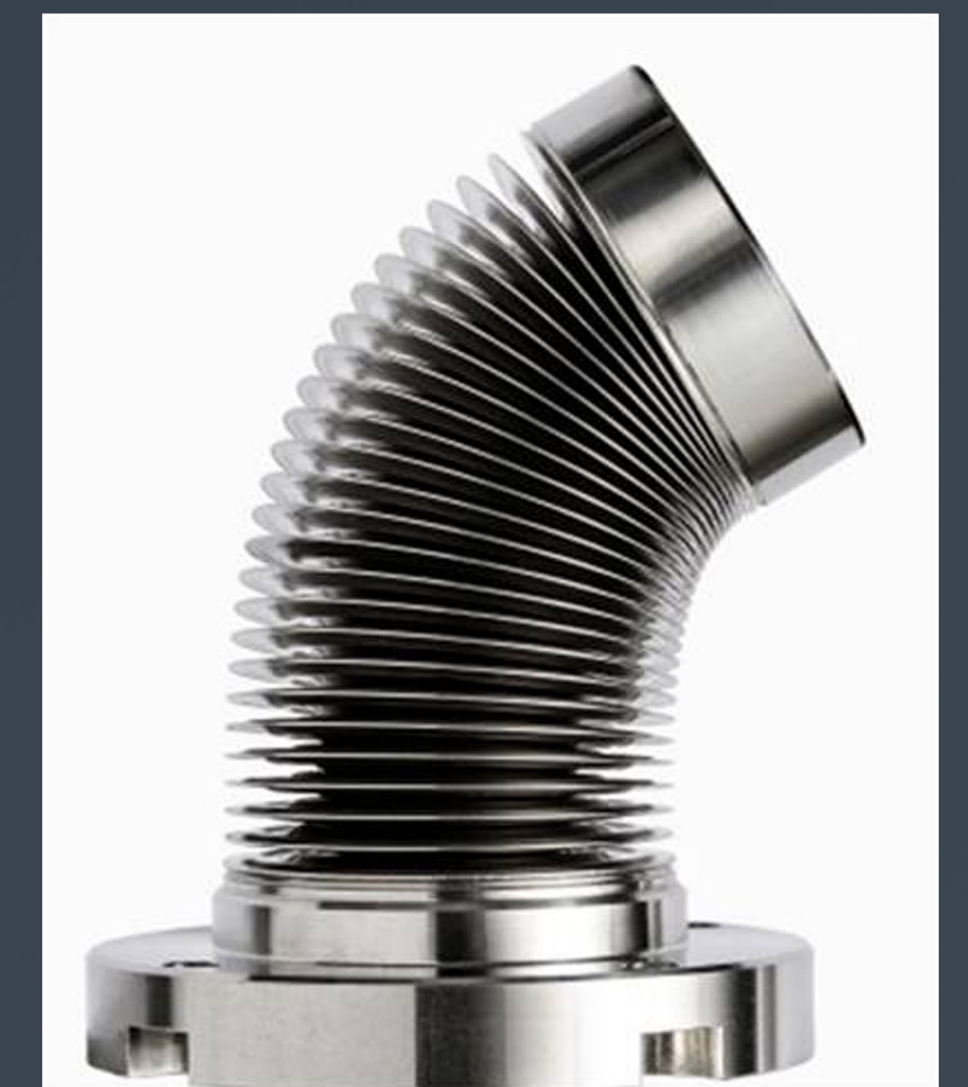
SMB Thermal Valves



What is SMB?

Senior Metal Bellows is a company in Sharon, MA, focused on manufacturing aerospace related parts. Most of these parts have to do with metal bellows, which are flexible metal canisters similar to springs, shown on the right.

senior Metal Bellows



SMB Intern Class of 2020!



My Contributions

My role at SMB for the past year was a lot of taking on very long term projects that were not able to be completed by the current staff. My experience in CAD as well as with MATLAB and physics allowed me to contribute to a lot of different projects.

Projects Explained

Over the course of my employment at SMB, I went through various projects, some long term and some short term. Some of the long term projects included setting up the layout for the test lab, which I did through the CAD software DraftSight. Another significant long term project was my collection and analysis of Spring Rate Data for various parts, which was done through MATLAB. Another intern and I also worked on the assembly of a test cycle rig, used to evaluate properties of metal bellows. I was also charged with researching SMB thermal valves, as there was debate over what type of medium to use for actuation.

Future Work/Impact

In the future, I hope to continue working at SMB. The amount I have learned about engineers and the way an aerospace company operates is something I am very thankful for. This upcoming summer I will be focusing my efforts on some of the unfinished long terms projects.