Megan Kowalski

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September 15, 2026

Badger Meter
Milwaukee, WI

Re: Mechanical Engineer, Product Development

Dear Hiring Manager,

Your Mechanical Engineer opening calls for someone who has designed cast and machined parts that carry water under pressure and can hold a tolerance stack-up through production. For the past four years I have done that on centrifugal pumps at Lakeshore Fluid Systems, and I would like to bring it to your flow measurement products.

The project I learned the most from was our new end-suction pump family. I owned the bearing frame and seal chamber across six sizes. Our first design used ductile iron because early FEA showed stress near the limit for gray iron at the mounting feet. I reworked the rib layout in SolidWorks, reran the simulation with the foundry's actual section thicknesses, and got enough margin to switch materials. That saved $18 on every casting. On the same program, a stack-up to ASME Y14.5 on the shaft and impeller fit let the machine shop drop a second operation it had been running on every part.

I also spend a lot of time outside CAD. I run DFMEA sessions with quality and manufacturing, and I traced a recurring seal leak back to trapped air behind the gland plate; the redesign brought warranty returns from 23 a year to 6. Before Lakeshore I designed custom conveyors and supported installations at nine customer plants, which is where I learned to check a drawing against how someone will actually build it.

My portfolio link above has drawings and FEA results from both jobs. I would be glad to walk through any of them with your team.

Sincerely,

Megan Kowalski