



1849 Brevard Rd
Arden, NC 28704

Basic Development Co-op Fall 2008-

Student will work with a development engineer on projects related to turbocharger bearing systems, seals, and test equipment.

Required to learn key bearing system design features; utilize Pro-Engineer to model turbo and/or test fixture components and prepare machining drawings; prepare work instructions for fabrication and testing, reduce data and communicate results. Work would include managing gas stand and engine cell tests and personal work with technicians to ensure timely results based on project guidelines.

Dependent on student's specific skills and experience, projects within scope of co-op position have included:

- design and fabrication of a high temperature valve with electro-mechanical controller
- lead start-up and initial qualification of a thrust bearing test rig. Worked with technicians to assemble, instrument and operate.
- design and construction of a oil blow-by test rig
- selection and procurement of turbochargers for Professor Kirk of Virginia Tech for use in bearing performance and stability studies
- assistance with testing of turbocharger seals and/or bearing system stability
- preparation and consolidation of turbocharger instrumentation drawings

Technical requirements: The qualified applicant is a student seeking a Mechanical Engineering Degree. Applicant will have completed statics, and dynamics; vibrations a plus. Must have strong overall computer skills, 3D cad experience is good, with Pro/E being ideal. Student must be a self-driven and able to accomplish entry-level engineering tasks with decreasing supervision. Thermodynamics, heat transfer, IC-Engine coursework and SAE involvement are a plus. Personal turbocharger experience also a plus.

Resume's can be sent to mburke@borgwarner.com Re: Basic Development Co-op position