



ME 4054W Design Projects - Project Proposal Form

Semester for which project is proposed: Spring 2013

Industry sponsored projects may require that students sign a nondisclosure agreement and/or a pre-invention assignment agreement. These forms can be found at <http://www.me.umn.edu/courses/me4054/agreements/>.

Project title	Liquid Finishing Rotary Bell Atomizer Turbine
Sponsor	Graco, Inc.
Advisor 1 Address Phone email address	Joe Daniski Graco Technical Center, 88-11 th Ave. NE, Minneapolis, MN 55413 612-623-6237 jdaniski@graco.com
Advisor 2 Address Phone email address	John Ingebrand Graco Technical Center, 88-11 th Ave. NE, Minneapolis, MN 55413 612-623-6062 jingebrand@graco.com
Project Background: High-end rotary bell atomizers have existed for many years for the automotive painting industry. This project will focus on investigating lower cost pneumatically driven air turbines and bearings used to spin the rotary bell atomizer.	
Project Objectives: <ul style="list-style-type: none">• Research and evaluate turbines and bearings currently available for rotary atomization equipment• Design and prototype a lower cost air turbine and bearing• Evaluate performance per Graco requirements• Provide design documentation and test results to Graco	

Advisor: Joe Daniski

- BME – University of Minnesota (CSE) 2000, MBA – University of Minnesota (CSOM) 2009
- After graduating from the University of Minnesota in December, 2000 I began my career at Graco as a Mechanical Design Engineer. 12 years later, my current role is an Engineering Manager, focusing on new product development for industrial spray equipment.

Advisor: John Ingebrand

- BME – University of Minnesota (CSE) 2004
- After graduating from the University of Minnesota in December, 2004 I began my career at Graco as a Mechanical Design Engineer. 8 years later, my current role is a Senior Mechanical Engineer, focusing on new product development for industrial spray equipment.

Company description:

Graco Inc. designs, manufactures, and markets systems and equipment to pump, meter, mix, and dispense various fluids and semi-solids worldwide. The Industrial segment provides equipment to apply paint and other coatings to motor vehicles, appliances, furniture, and other industrial and consumer products; and process pump equipment that move and dispense chemicals, and liquid and semi-solid foods. This segment also offers sprayer systems and plural component proportioning equipment to apply protective coatings and foam to various surfaces; and equipment to pump, meter, mix, and dispense sealants, adhesives, molded polyurethane parts, and composites. The company offers its products primarily through third-party distributors. Graco Inc. was founded in 1926 and is headquartered in Minneapolis, Minnesota.