

Report showing "STEP 1." Draft notes example

Company Information:

Company Name:	Metso Automation
Location:	Shrewsbury, MA
Contact Name:	First Last Name here
Title:	Usually a manager or person from H.R.
Phone #:	
Email:	

Job Shadow Information:

Job shadow's name:	Bob Boulay <i>(Also include their email and phone number)</i>
Title:	Manager, Manufacturing Engineering Flow Control

1. What are your current job responsibilities?

In charge of manufacturing engineering, facilities engineering, maintenance, tool design and crib room.

The manufacturing engineers are responsible for the (part) programming for the manufacturing equipment. They interface with the product engineers who use solid works to design new products or make modifications to current products. The manufacturing engineer brings the model into Esprit to ...

Bob has 4 manufacturing engineers that report to him. They have a variety of backgrounds, from area and outside the area.

Bob is involved in long term strategic planning, reports to the VP of Engineering for Metso. He is responsible for this facility and also engineering support for the Lithia Springs, GA production facility.

2. Please describe what a typical day or week would be for your job?

For any given week, Bob works with many other functions in the facility including marketing, sales, and engineering about long term strategic direction. He coordinates manufacturing's role in achieving goals and works with many departments in support of these goals.

Equipment planning to meet goals such as plant layout changes to improve work efficiencies in the plant.

He is involved in concurrent engineering teams; product designers and manufacturing engineering.

In support of the standard product lines, the engineering team looks at customer needs and the design around the need.

Example of a "zero leak" valve, to make sure it is designed and manufactured so that it meets customer demand and has high quality, meets operational requirements. The manufactured

valves have to optimally perform which means the environment where it will be used is part of the design and manufacturing processes that his engineers are involved in.

3. How has your education and other kinds of learning (classes, on the job) prepared you for this job?

Started out in production, and to make more money, went back to school. Another employee at Metso (Jamestown previously) encouraged Bob to go to school instead of leaving for another job. Took classes to get the undergraduate degree. Started as manufacturing engineer for 12 years then mechanical engineer for 7 years.

Got into the facility engineering, doing layout to improve throughput and work flow through the facility.

Liked going to school. To get into management level, earned the masters degree.

In SME, have networking and can exchange, see what other professionals are doing at manufacturing in the area. It's a way to learn how other technology or processes are applied and will possibly get good ideas that would be possible for implementation at Metso. Learn new technology.

4. Why did you choose the field you are in now?

Bob has a mechanical aptitude and is a hands-on person, doing carpentry, working on cars. Liked the engineering perspective where taking it apart and making it work better was appealing. He was good at numbers and math.

5. Describe the types of technology that you work with to accomplish your job?

Computer.

Machine tooling – solid modeling technologies.

The manufacturing engineers are involved with the technology.

The machine tool program, manufacturing system, shows tool path to machine the part.

Bringing on robot technology – a welding robotic system implemented helped with the quality of the welds and higher volume. Plant personnel who had the welding experience learned how to use the system.

Rust proofing process – a new computer controller.

6. What advice would you give to students exploring a career in your industry and your field?

Two areas that work hand-in hand are manufacturing and product design. The manufacturing engineer would have a production path whereas the design engineers would have more of a research and development understanding. Each group needs to understand both areas.

Focus on math and technology courses. Need exposure from both areas.

Manufacturing engineers are hands on, can assemble and put together.

Computer skills – finite part analysis, would be for product design engineer.

Automation systems.

7. What has been the most challenging for you in this role?

Bob likes that you have to be dynamic and stay ahead of the curve. Worcester was a large industrial town. Metso stays competitive because they continue to stay dynamic. The nature of our working environment doesn't stay static, no sitting around. Continuous change needs to happen to stay competitive.

Customers demand just in time, being more flexible to produce parts faster.

Have to compete globally, but also understand what should be kept here, what should be done by external vendors.

8. What do you predict about the future of your industry 1 year from now? 5 years from now?

The industry will continue to change. Production in one country will eventually leave for another country that has a labor advantage since we are in a global market. The workforce needs to be more educated. Computer technologies. Shop floor people need to be more than just production operators, but need to be able to interpret, analyze and make decisions.

Things like bar coding, RFID technology will make it faster to ..

9. Where do you see yourself in 3 to 5 years?

Continue to stay in manufacturing.

Would like to teach and give back through education.

Videos:

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