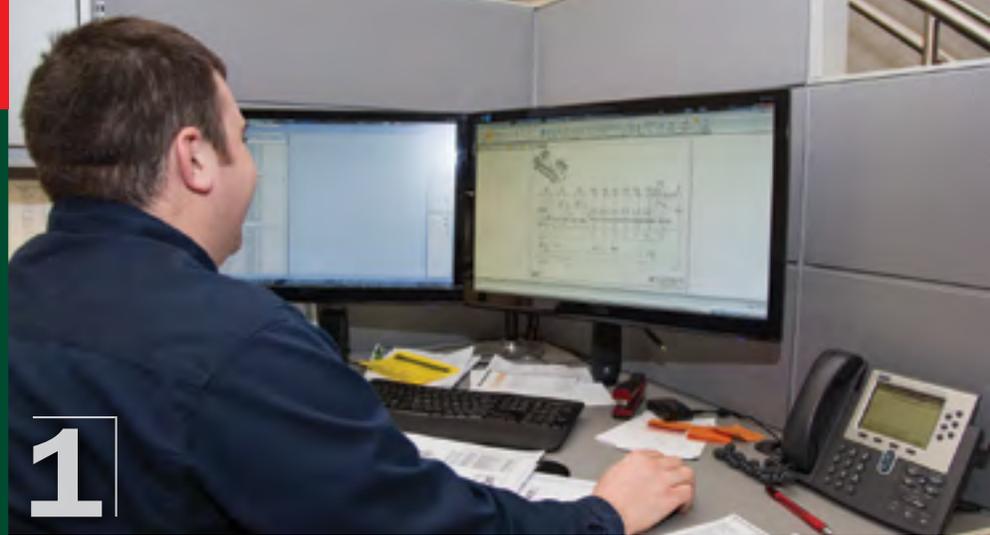


HOW AN AG-BAGGER IS MADE

by Hoard's Dairyman staff



YOUNG DAIRYMEN



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ROWS of white plastic bags filled with silage are becoming a common sight on many farms. In fact, more than a third of the dairies from our 2013 Hoard's Dairyman Continuing Market Study used horizontal sealed storage bags to keep silage.

This method of storage offers an ideal environment for preserving high-quality, highly digestible feed. Getting feed into those neat plastic bags takes the work of an ag-bagger. *Hoard's Dairyman* visited Ag-Bag, a Miller-St. Nazianz, Inc., Company, in St. Nazianz, Wis., to learn how they make this piece of equipment.

1. Production of an ag-bagger starts from the ground level up. Ideas begin as hand sketches and are then quickly turned into computer drafted images. A team of engineers brainstorms concepts and designs the ag-bagger. Suggestions on how to make the machines better come from the sales and marketing team, people on the assembly crew and, of course, from people who use the ag-baggers on farms.

Once a product prototype is designed and built, it is tested in the lab and then out on farms. Emphasis is placed on getting the design right before production begins.

2. Physical construction of an ag-bagger begins with cutting out the needed pieces. A high-definition plasma cutting machine does that job. The cutting machine operation is all programmed through a computer. Inputs can be made for the parts needed and their due date, helping this stage of production to run very smoothly.

Typically, all the parts needed for one unit will be cut at one time. Essentially, it's almost like making a kit for each ag-bagger.

3. The diagrams designed by the engineers in step one come in very useful during production. Here, a press brake is used to bend parts to the correct angle. The press brake applies 250 tons of pressure.

4. In this step, welders begin to put pieces of the ag-bagger together. Again, generated drawings are used as guides for the welders to follow. More welding is done later on in the assembly process as well.

5. Next, each part of the ag-bagger is cleaned with a slightly acidic wash containing phosphate. This etches the metal and helps the paint adhere better and last longer.

Primer is applied first. Ten minutes later, two light coats of topcoat paint are added using an electrostatic paint gun. Each piece is given a final review, and any necessary touch-ups are made. The paint is oven baked for 30 minutes, then left to cool for another 30 minutes.

6. Assembly begins with one or two people working on each ag-bagger, or three if it is a large piece of equipment. The assembly process follows a very systematic approach, making sure every part is attached correctly. Engines, manifolds, wheels, batteries, lights and wiring are some of the many pieces that must be added.

At certain points, checks are done to be sure things are working properly. This includes making sure the engine runs, that steering is calibrated, and that beater bars and hoses are functioning as they were designed to operate on the finished product.

7. As soon as a machine is finished, it is shipped out to the dealer that ordered it. No equipment and very few pieces are kept in storage; they are built when an order is made. Once the components are completed, an ag-bagger is assembled in a matter of days. 🐄



View a more in-depth video on the making of an Ag-Bag silage bagger at www.hoards.com/youth/ag-bagger.