

Beaver Plastics

Beaver Plastics is a 24x7 manufacturing facility (Edmonton, Alberta, CANADA) that produces polystyrene materials for the construction, transportation, agriculture, silviculture and horticulture industries in Canada and the U.S.

Product Mix

Beaver Plastics produces a variety of plastic products that you can view on their website at:
<http://www.beaverplastics.com>

Manufacturing Process

The process for making polystyrene trays is relatively straightforward:

1. Polystyrene “beads” are bought months in advance from a limited number of suppliers in North America and Asia. This means that Beaver has to make accurate inventory decisions based on a relatively strong commitment to their production plan.
2. These sand-like (or powder) beads of polystyrene must go through a curing process and are then stored in large bins.
3. The molding machines use a mold (tool) to manufacture the end product from the raw material.
4. Product is then bagged and stacked for shipping.

They have a similar process for manufacturing other products using different molds. Larger products are cut using electrically heated wires creating the desired size and shapes. This can be a two or three step process depending on the topographical complexity of the end-products.

Their newest product Logix Insulated Concrete Forms is complicated further because they have to include special materials in the forms to allow for reinforcing and attachment processes when the product is put to use. Marks embedded on the outside of the end-product indicate where screws can be drilled and other attachments can be made.

Planning

1. Planning for one of their products is usually done once a year wherein last year’s demand is known and based upon that number and a few other factors, this year’s plan is created. For the next 4 – 5 months the 12 machines that produce their seedling trays run at near-to-full capacity, producing trays that are sold to horticulturists. If the trays aren’t ready, the horticulture can not be done. If the horticulture can not be done, the planting season will not be successful. Thus this seasonal product really is – seasonal. And since the trays are reusable for 5 – 10 years, their orders are really to replenish trays purchased over 5 years ago.

Try planning for that kind of demand accurately!

Highlights

- TS allows Beaver Plastics to schedule large seasonal product orders along with daily and weekly on-demand orders.
- TS gives Beaver Plastics the flexibility to change the schedule easily and quickly.
- TS allows Beaver Plastics sales department to give customers accurate deliver dates with the assurance they will meet the date.
- TS allows Beaver Plastics to track limited tool usage in multiple facilities in North America.

Scheduling

1. New orders come in every day and because the due dates are usually very tight they can impact those projects that have already been scheduled.
2. Approximately ½ of all construction orders are for customized shapes and configurations – none of which can be planned for until the order comes in. These custom orders are added to Taylor Scheduler where they “compete” with regular production, conflicts are worked out and a new schedule is created. It’s a very dynamic scheduling environment that changes from day-to-day and urgent demand can impose hourly changes to this lively business.
3. At 3:30 every day, the Master Scheduler gathers up the fax/email orders that have come in during the day and adds them to Taylor Scheduler so that the next day’s schedule can be generated.

Taylor Scheduler automatically coordinates orders from the sales team with machine availability and capacity. “We’d be lost without TS”, says Mr. Allan Smoliak, Production Scheduler/Purchaser, “it is not uncommon for our sales department to request due dates that are unreasonable. Because our machines are accurately modeled with TS, we can show them the realistic due dates before they make a delivery promise to a customer.”

Beaver Plastics also uses TS to schedule and manage exchange of various molds among 3 facilities in Alberta, British Columbia and Mexico. Since the molds are expensive to make, TS allows Beaver to avoid the high cost of duplicating molds for each facility and “share” the molds between the facilities. Before TS, Beaver used to schedule work not aware that the required mold was in another facility. This coordination is now handled in an automated way by the Taylor Scheduler.

Growth is a part of being successful and Beaver is growing. Efficiencies gained with their experience and history in this type of manufacturing will be applied to their new facilities coming on stream. “While the process of making polystyrene products is inherently uncomplicated when compared to other types of manufacturing, we are always looking for ways to improve”, says Mr. Smoliak. “As a result, we are looking to suppliers like Taylor Scheduling Software to help us become more efficient at each new facility” Mr. Smoliak said.