THE CHALLENGE:

To build a puller, cutter and coiler for a 10’ wide vacuum formed sheet, with a continuous line speed of 25 feet per minute.

THE REQUIREMENTS:

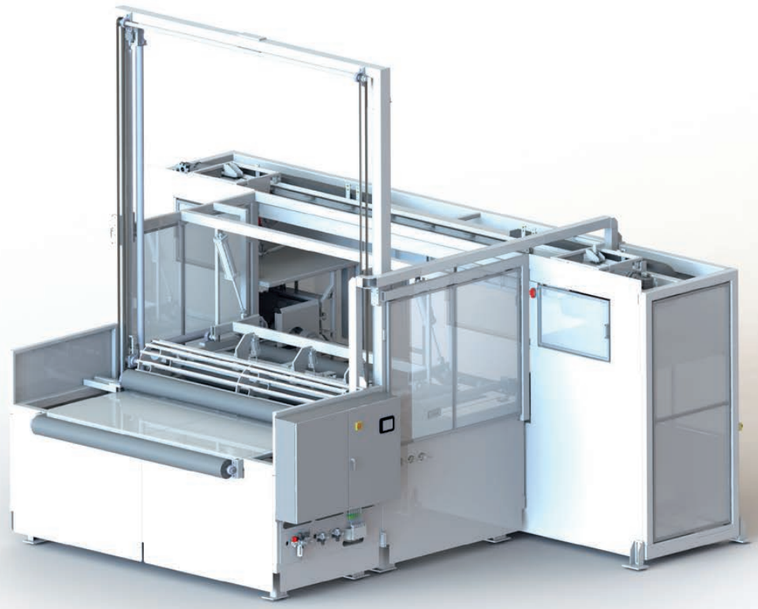
Adescor was presented with the opportunity to build a puller, accumulator, cutter coiler machine for a continuously vacuum formed dimpled sheet used for geo-membrane and damp-proofing applications. The plastic sheet ranged in thickness between .020” - .060”, however the dimple patterns could range from 3/8” – 1” and a geotextile would also be applied to one side of the sheet, making coiling and cutting a challenging task.

The winder requirements were unique for continuous sheet as the dimpled patters made the product quite unpredictable in how it would pack on the coil, and the winder needed to handle variable coil widths, slit rolls, variable lengths and finish the package with stretch wrap.

While Adescor had experience building sheet coilers, the particulars of the project required a new approach to accommodate the deep dimple patterns and geotextile membrane being attached to the continuous vacuum formed sheet.

THE DEVELOPMENT:

The typical Adescor process on a design build project is to first develop the machine performance specifications with the customer, once complete the machine concept is produced in 3D Solid Works and presented to the customer. When approved by the customer, the final drawings are detailed, electrical system is designed and the PLC program is developed. On this project an Allen Bradley control system was specified by the customer, which fit Adescor’s capabilities well given the relationship with Rockwell as a machine building partner.



THE PRICING AND SCHEDULE

The order was received in the spring of 2013, with an installation target of first quarter 2014. The final fixed cost pricing for this project was completed and approved in June 2013, at which time all commercial contracts were signed and the project commenced. The initial design began in early May 2013, signoff in June, and the project was completed and shipped by Christmas 2013 ahead of schedule. The project value was between 300 and 400 thousand dollars.

THE FINAL RESULT: