

Customer Requirement:

Automatic center and edge guiding for carpet rolls

Banner Solution:

A-GAGE[®] EZ-ARRAY Short Range Kit

Why Banner?

Superior product at a competitive price—the cost-effective EZ-ARRAY includes a complete set of features in one convenient package, and its ability to look for two different edges makes it an ideal solution for carpet plants

Customer Benefits:

- **Flexible and adjustable**—the EZ-ARRAY light screen adjusts to accommodate different sized rolls, no manual movements required
- **Easy setup and maintenance**—the EZ-ARRAY brackets and software are designed to provide simple installation and alignment, especially for carpet applications



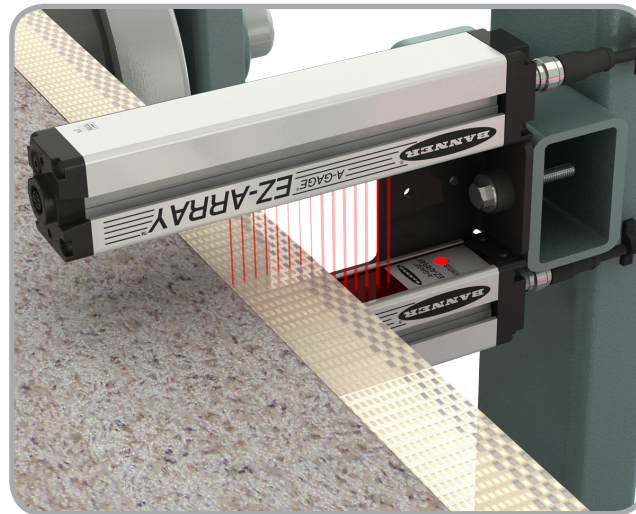
A-GAGE EZ-ARRAY Features:

- SMBLBCZB bracket provides easy installation and alignment
- Software GUI allows one model to accomplish multiple tasks
- Short range kit is available in 150 mm and 300 mm lengths

More on bannerengineering.com:

- [Standard A-GAGE EZ-ARRAY Overview](#)
- [Short Range Kit Description](#)
- [Product Literature](#)

A-GAGE EZ-ARRAY provides center and edge guiding for carpet manufacturer



The EZ-ARRAY monitors air-to-selvedge and selvedge-to-tufting edges on a roll of carpet. The array provides a measurement output, ensuring proper width and enabling accurate edge guiding.

Background

During the carpet manufacturing process, carpet rolls go through multiple processes: tufting, latex application, dyeing, sizing, cutting, etc. As the rolls move into the machines that perform these processes, they are continuously monitored and measured to ensure proper guiding.

Challenge

One manufacturer was using a basic sensing array with a 2 inch range to monitor the rolls for center and edge guiding. Center guiding measures the distance between the ends to the middle of the rolls, verifying that the carpet is uniform and limiting the amount of material wasted. Edge guiding monitors the two edges of the rolls, carpet to selvedge and selvedge to air. For 12', 13.5' and 15' carpet rolls, operators had to manually move and adjust the sensors to ensure proper guiding. The customer looked for a solution that would automatically provide accurate measurements for all widths of carpets.

Solution

Banner's A-GAGE EZ-ARRAY, a two-piece measuring light curtain, solved the customer's application. With well designed brackets and an intuitive software GUI, the EZ-ARRAY makes perfect sense in a carpet plant. One array can cover the necessary area (18 inches on each side), eliminating the need to mechanically adjust for different size rolls. And with the software package, the customer can program the arrays to fulfill multiple applications, without having to buy multiple models. For center guiding, a pair of arrays is mounted on either side of the roll, and for edge guiding, one array pair is mounted per roll. When beams are blocked, a carpet-specific algorithm is enabled and measurement information is reported to a PLC/HMI. With the EZ-ARRAY, the customer has a flexible, cost-effective solution that's easy to setup and maintain.