

from Bodine Electric Company

■ High Tech in Agriculture and Farm Equipment

Gearmotors Improve Productivity



Electric Planter System/ Farm Equipment

As seed planters get wider, the standard mechanical linkages that control the metering of each individual planting unit have certain limitations.

Driving each unit of the planter with a small electric gearmotor allows individual row control as well as curve compensation. This ensures that the seed population is exactly as prescribed and maximizes the productivity of every acre. Power is provided by the battery or alternator on the tractor or implement.

A manufacturer of electric planter drives sought out Bodine Electric to be the supplier for their gearmotor. They needed a gearmotor that could:

- operate from the tractor's 12 volt battery
- attach easily to the seed planter
- deliver the torque and speed needed to dispense seeds at a precise rate
- communicate with their microprocessor
- withstand the harsh farm environment.

Bodine Electric responded with a custom gearmotor that met all of their requirements. Bodine engineers designed a 12 Volt winding that, in combination with an appropriate gear ratio, delivered the exact speed and torque needed ([click here](#) for more about Bodine low voltage products). Bodine's small right-angle type 24A4BEPM-3F/H gearmotor features multiple mounting options for different mounting orientations. An encoder was added to the motor to communicate speed feedback to the microprocessor.

Bodine brings over 110 years of problem solving experience to a wide range of applications in industries as diverse as medical, packaging, industrial automation, farm/agriculture, and solar powered outdoors equipment. We look forward to working with you on your next fractional-horsepower gearmotor design challenge.

application insights

The Design Requirement

An agricultural seed planter required a compact, rugged and powerful 12V gearmotor to drive its seed meter.

The Solution

Bodine developed a 12V hollow shaft gearmotor and encoder combination designed to withstand the harsh farm and outdoors environment.



Bodine's standard type 24A4BEPM-3F/H DC hollow shaft gearmotor ([click here](#) for more information)