

Custom Controls for Mixer Application



with the highest quality source materials and engineering components for optimum strength and efficiency. As a result, the end user gains greater operating performance and less downtime – as well as optimal weight distribution, simplified diagnostics, ergonomic controls and increased productivity.

The Challenge

Continental Mixers approached Scott Industrial Systems (Scott) to create a software platform that allowed for more modular and easily expandable configurations to accommodate their growing number of truck body options and feature packages.

The Solution

The engineers at Scott addressed the challenge by developing and designing the First Kommand software system, providing full control over all cement mixer functions, including:

Drum speed. Precise control of the drum speed allows the cement to maintain the correct consistency on the way to the job site, keep the liquid cement from spilling from the drum during transportation, and minimizes waste during unloading.

Remote function operation. Remote functionality can allow a single operator to unload the truck with high accuracy and positions the chute to accurately pour, all while standing outside of the vehicle.

Within the software application, there are safeguards in place to ensure that the correct operator controls are engaged when it is safe to do so, and that remote operation is always reported back to the cab.

Accurate and advanced reporting. System diagnostics guickly and accurately report errors from hardware and systems around the vehicle, which help technicians quickly diagnose and troubleshoot regular repairs, allowing trucks to be returned to service faster. Advanced maintenance tracking allows technicians to proactively track when drum and vehicle maintenance should be performed.

Custom Configurations for Critical Control



Residential driveways are a common use of these functions. The operator can transport the concrete to the site and then accurately dispense the entire load of concrete while inching the truck forward by remote operation.

Let's take a closer look. The engineering team was able to combine multiple system components with different software platforms for one cohesive control system.

Scott carefully selected quality components from several suppliers for electronic units, coils and valves, display, hydraulic pump and keypads to provide precise control over the hydraulics and allow Continental to finely tune the behavior and speed of functions. By being able to integrate the controllers with the display provides the flexibility to select the right parts for customization. In this specific project, two isolated CAN networks successfully worked through a single controller; ultimately reducing network load and being able to communicate at the OEM specified baud rate.

Today. Currently, there are roughly 1,200 Kimble mixer trucks in operation using the First Kommand controls system.

Like the First Kommand for the Bridgesaver, the design and engineering team at Scott can work directly with customers to solve operational challenges and design flexible solutions for:

- i. Eliminating pain points with existing solutions
- ii. Developing new product lines
- iii. Designing for future growth in product lines

If you have a challenge that needs a design team to solve, contact us.

The system can support over eight million possible configurations. The system supports a wide selection of feature packages and operator peripherals, including partial and full RC control.

Features can include:

- 7" touchscreen full-color display
- Digital, weatherproof keypads
- Adjustable LED backlighting
- Multiple joystick options
- Multiple wireless remote-control options
- Temperature and pressure sensors
- Hydraulic valves and pumps
- Real time diagnostics
- Remote steering capability up to 300 feet away



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