

Kraft Assists Barbco with New Tier 4 Tribor and Auger Boring Machine Designs

Programming Danfoss microcontrollers with real-time software feedback optimizes horsepower requirements.



Barbco Tribor36 Auger Boring Machine

Barbco Inc.'s latest endeavor, in the company's goal to push the underground construction industry forward, is the introduction of the Tier 4 Tribor and Auger Boring machine designs with controller area network (CAN) communication protocol.

Challenge

The construction industry mandates design that meet regulatory requirements, improve machine performance, and mitigate safety concerns for operators; regulatory emissions standards require horsepower management. Barbco, along with Kraft Fluid Systems, plans to engineer new machines to address these challenges and present the company's best machines to date.

Solution

Using Danfoss Plus+1 Software, Barbco programmed an engine to use the required horsepower while optimizing for the job. Kraft engineers programmed the Danfoss microcontroller with software to monitor each of the machine's requirements in real-time to ensure that the engine horsepower will be properly prioritized. In addition to horsepower management, by using CAN communication protocol, Barbco's Tier 4 machines will improve overall machine control and assist in onsite diagnostics and troubleshooting. Plus+1 programming will allow operators to continuously monitor engine performance by receiving the engine's CAN messages, leading to improved preventative maintenance, fuel management, operator productivity, and safety.

Results

Barbco's Tier 4 machines will work smarter and be more safe and efficient than any machines previously produced. Utilizing Danfoss pumps, motors, and valves that drive the Fairfield hubs, will allow Barbco machines to bore with the best.

HIGHLIGHTS

CLIENT NAME

Barbco Inc.

LOCATION

Canton, Ohio

PROFESSIONAL SERVICES

- Engineering and software design
- Field Sales
- Application Field Testing

EQUIPMENT SPECIFIED

- Danfoss DP710 Display
- Danfoss Plus +1 Microcontroller
- Danfoss PVG 120/32 and 32/16 control valves
- Danfoss Series 45 Pumps
- Danfoss Series 90 Pumps
- Danfoss H1B Motors
- Danfoss Orbital Motors
- Danfoss WS103 CAN Bridge
- Danfoss Sensors
- Fairfield Torque Hubs

RESULTS

- Unique Software Development
- Optimized Design

CLIENT QUOTE

"For more than 27 years Kraft Fluid Systems has provided us with excellent service and support. They're not a vendor; they're a partner to us. I've been fortunate to work directly with them, and I'm looking forward to an exciting future as we continue expanding our products."

– Anthony "Tony" Barbera, VP Barbco Inc.