

IROCK Brings New Mobile Crushing Plant to Market

Kraft assists mobile/portable crushing and screening OEM with products and software development for a new addition to their equipment line.



IROCK TC-15CC

Kraft offers software development and product support to assist IROCK in the development of a small footprint, high productivity mobile crushing unit capable of crushing a variety of materials, including concrete, gravel, rock, and sand.

Challenge

IROCK's new TC-15CC closed-circuit tracked impact crusher was designed to maximize and leverage available horsepower to capitalize on production output. Due to the machine's large crusher inlet opening design, the unit was capable of handling very large unprocessed pieces, which would allow the operator to push the limits of what was being processed through the crusher. This predicament presented IROCK with a potential horsepower overload scenario.

Solution

IROCK worked with Kraft to design an algorithm for the Danfoss Plus+1 controller that would eliminate the human error element from the operator and prevent possible engine overload. The resulting software was designed to integrate with the CAT® engine CAN bus and make automatic decisions based on the performance of the engine. Now, when the engine reaches a threshold leading to potential overload, the Danfoss Plus+1 controller software automatically derates the feeder speed, or stops the feeder, to divert horsepower toward the crusher.

Results

The Danfoss software made the machine more intelligent by giving the Danfoss Plus+1 controller the ability to respond and avoid engine and crusher stalls well before a human could detect an incident. This allows the operator to maximize the capabilities of the machine by processing large/high volume product through the crusher without having system overload concerns.

HIGHLIGHTS

CLIENT NAME

IROCK Crushers LLC

LOCATION

Valley View, Ohio

PROFESSIONAL SERVICES

- Engineering Design
- Field Sales
- Application Field Testing

EQUIPMENT SPECIFIED

- Danfoss DP710 Display
- Danfoss Plus+1 Microcontroller
- Danfoss PVG 32/16 control valve
- Danfoss Series 45 Piston Pumps

RESULTS

- Unique software development by Kraft
- Available supply of product

CLIENT QUOTE

"Kraft Fluid Systems has been a trusted alliance that has yielded mutually beneficial results for years. Their highly trained and competent staff has time and time again delivered for IROCK when we needed it most. Best in class vendor-managed inventory programs, close proximity, high level of product quality and surety of supply make Kraft Fluid Systems a fantastic partner for IROCK in our endless pursuit of premier product development and service support."

– Chris Larson, IROCK Crushers LLC