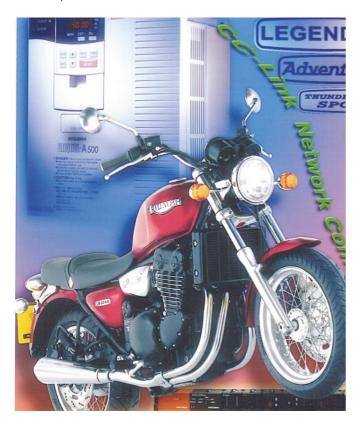**Industry: Automotive**
Products Used: Networks /// Drives /// Modular PLCs

Networking triumph

Triumph Motorcycles has created an industry-leading test and development facility by interconnecting three individual test cells with a Mitsubishi Electric Control and Communications Link (CC-Link) automation network. CC-Link is the latest technology open fieldbus network for automation systems, and is based upon standard RS-485 twisted pair connections.

Simulated motorcycling Automation equipment within the Triumph test and development cells include Mitsubishi Electric A500 drives, A series PLCs and other Mitsubishi products, which are configured as 30 or more separate nodes on the CC Link networks

Triumph's Andy Parker-Bates explains, "A Superbike's engine and chassis are going to be worked very, very hard. To ensure Triumph riders remain safe under the most extreme conditions, we have to know exactly how our bikes will react millisecond by millisecond when put through their paces. For applications where the network systems have large overheads / performance limits, and also restrictions on development imposed by some other open network protocols, CC-Link is the ideal solution."

Andy continues, "We have CC-Link networks controlling the three main assembly lines. A CC-Link network connects the Mitsubishi programmable controllers and Mitsubishi A500 inverter drives in the paintshop, and when we revamped our production line's rolling road last year CC-Link was at the core of the system design requirements."

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> For applications where the network systems have large overheads / performance limits…CC-Link is the ideal solution
>
> Andy Parker-Bates
> Triumph
> "

At 10Mbaud, CC-Link's basic operating speed is higher than most comparable open systems, and is effectively faster still because the protocol is more efficient than other open protocols. CC-Link has a number of special features such as pre configured function blocks for ease of set up, and error free node disabling for maintenance and reconfiguration.

The CC-Link networks do not standalone, but are integrated parts of Triumph's complete design, development, production, quality assurance and business control system; a seamless part of the ongoing Triumph legend.

Application story first released October 1999 by Mitsubishi Electric UK