

INTERCONNECTIVITY PRODUCTS Proven in the Most Demanding Applications

Cinch was founded in 1917 by Arthur Kimbell, a visionary 27-year-old civil engineer who launched an automotive start-up. Cinch's innovative push-button window curtain fasteners populated the country's first cars manufactured by Ford and Chevrolet, quickly establishing Cinch as a key supplier to a new but developing market. Window curtain fasteners disappeared, of course, but Cinch met the challenge with flexibility. The ability to reinvent itself across changes in technology remains part of Cinch's DNA.

Cinch's success continued under United-Carr and, later, TRW. They wisely invested in R&D and supported global expansion. Through the decades, Cinch furthered its expertise in plastic and rubber molding, high-speed stamping, precision machining, and semi-automated assembly. Coupled with a strong R&D effort, Cinch has pursued a flawless Zero Defect quality environment from the early 1960s to this day—positioning the business for success in the highly demanding market of harsh environment connectivity.

Cinch was acquired by Bel Fuse in 2010 and has since grown substantially through strategic acquisition and continued investment in technology development. At its 100th anniversary, Cinch stands as a global leader whose products support applications including the world's most popular commercial aircraft, agricultural equipment, and harsh environment military applications.

CINCH BRANDS

Omega

STRATOS
optical technologies

c-enx

ModICE®

Dura-Con™

Semflex
microwave solutions

FQIS

AIM CAMBRIDGE

JOHNSON

TROMPETER
RF connectivity

FIBRECO

**MIDWEST
MICROWAVE**

**CINCH MIL/AERO
Circulars**

CIN::APSE®

**INDUSTRIAL
CINCH**

Viewsonics™

VITELEC®
ELECTRONICS

Quality and Innovation Since 1917

THE CINCH STORY



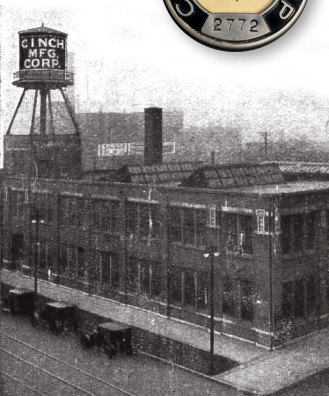
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INNOVATION First known for car-window curtain fasteners that worked at the push of a button, Cinch quickly adapted to making parts for products that shaped American life: radios, refrigerators, TV sets, even juke boxes. Across successive waves of technologies, Cinch has emerged as a global leader in the manufacture of highly sophisticated components for a wide range of industries.

CINCH MILESTONES



TOP TO BOTTOM: Early badge; Cinch's first factory at 2335 West Van Buren Street, Chicago, in 1931; Chicago workers in 1947



1917 Arthur Kimbell founds the Automobile and Engineering Company, which makes curtain fasteners, shades, and gadgets for Ford Model Ts and other early cars.

1919 Name changes to Cinch Fasteners after customers comment that products "work like a cinch."

1924 Product line broadens to sockets and boards with the growth of radio. Cinch Fasteners is acquired by Carr and changes its name to Cinch Manufacturing.

1930s Cinch's financial strength allows it to extend credit to a struggling company called Galvin, which survives and becomes telecom giant Motorola.

World War II Cinch supports the war effort by making radiator filler necks for vehicles and parts for walkie-talkies.

1946 Cinch acquires the Howard B. Jones Company, famous for "Jones plugs" and connectors used in pinball machines, juke boxes, and vending machines.

Late 1940s Increased demand leads to the manufacture of stock parts through local distributors.

1950s Licenses with Cannon and Amphenol boost Cinch's presence in the tube socket and micro-ribbon connector business; sales rise to more than \$14 million.

PRODUCT DEVELOPMENT AND QUALITY State-of-the-art product development is woven into Cinch's DNA—from 1930s patents of radio tube sockets that prefigured the multi-pin electrical connector, to 1980s fiber optic advances that earned industry awards. Today the rigorous APQP process and certification in ISO 9001 and AS9100 drive the creation of products that fulfill and surpass marketplace needs.



TOP TO BOTTOM: Connector close-up; Cinch man illustration, 1963 catalog; Shuttle Orbiter 101 Enterprise spacecraft in 1976, which used Dura-Con™; Cray 2 supercomputer

Early 1960s Cinch enters the aerospace market when it develops the NuLock connector for F4 Phantom Aircraft.

Mid-1960s A licensing agreement for the Omega BACC 45 connector series opens the door to the commercial aerospace market.

1968 TRW acquires Cinch and its parent company United-Carr. Cinch adopts a Zero Defect quality program that leads to its selection as a supplier to companies supporting the first USA moon landing programs.

1970s Cinch contributes to NASA's early space shuttle program, designing a series of Dura-Con™ connectors used on the Orbiter spacecraft. These connectors and Mil-C-24308 D-Subs are also used in the Voyager program, Mariner space probe missions to Mars, and Apollo moon explorations.

1980s Cinch is the main connector supplier for the Cray X-MP, Y-MP, C90, and Cray 2 supercomputers (then the world's fastest and most powerful). It supplies Dura-Con™, specialty micro stacking, ZIF, and CIN::APSE® connectors.

1990s Cinch becomes a major supplier to the defense market, providing high reliability connectors and wire harnesses, and develops the ModICE® enclosure for agricultural and construction equipment.

LOYALTY From its earliest days in Chicago, Cinch and its employees have shared a special bond. For decades the Cinch Bugler newsletter kept everyone informed of employee news and company events. Today the family-oriented culture continues to thrive. Many employees spend most or all of their careers at Cinch, with second and third generations well represented.



2010 Bel acquires Cinch and continues to grow the company through acquisition and technology investment.

2012 Bel acquires Fibreco Limited and Gigacom Interconnect, growing its presence in Europe and in the fiber optic market.

2013 Bel acquires Array Connectors, specializing in mil-spec circular connectors.

2014 Bel acquires Emerson Network Power Connectivity Solutions and its brands: Johnson, Midwest Microwave, Trompeter, Stratos Optical Technologies, and Vitelec. Cinch Connectivity Solutions is created and the integration of acquired companies begins.

2017 Cinch's various new product lines, employees, and facilities have been integrated into a single world-class connectivity provider.

Cinch continues to develop new solutions for the changing demands of the aerospace, military, and industrial markets, targeting requirements for high reliability in harsh environment applications.

TOP TO BOTTOM: Cinch connectors are used in the Boeing F-18 jet fighter; Cinch's Omega and Dura-Con™ connectors are used in military applications; the Boeing 737 MAX (on average, certain commercial aircraft contain more than 5,000 Omega circular connectors)