

The World of Motion Control Transformed

The innovative concept and unique principles underlying the “harmonic drive®” were first developed by the brilliant American inventor, C.W. Musser. His invention, which uses the flexibility inherent in metal to transmit motive power, was a revolutionary advancement that surpassed conventional theory and gained the avid attention of the entire world. Two companies were willing to commit to the commercialization of Mr. Musser’s invention: United Shoe Machinery of the US, and the predecessor to our own company, Hasegawa Gear Works, Ltd. Thanks to their vision, Harmonic Drive Systems Inc. now offers the benefits of this unique motion-control method to the world market.



C.W. Musser, inventor of the Harmonic Drive®

by a Single Invention



Musser's wave-motion gearing mechanism was originally called "Strain-wave gearing" and was patented under that name. Subsequently, Harmonic Drive Systems Inc. succeeded in commercializing the technology. The technology today is generally referred to as a "wave-motion gearing mechanism," while the term "HarmonicDrive®" is a registered trademark that applies exclusively to the products manufactured by Harmonic Drive Systems Inc. This trademark is registered not only in Japan but also Taiwan, South Korea, and China.