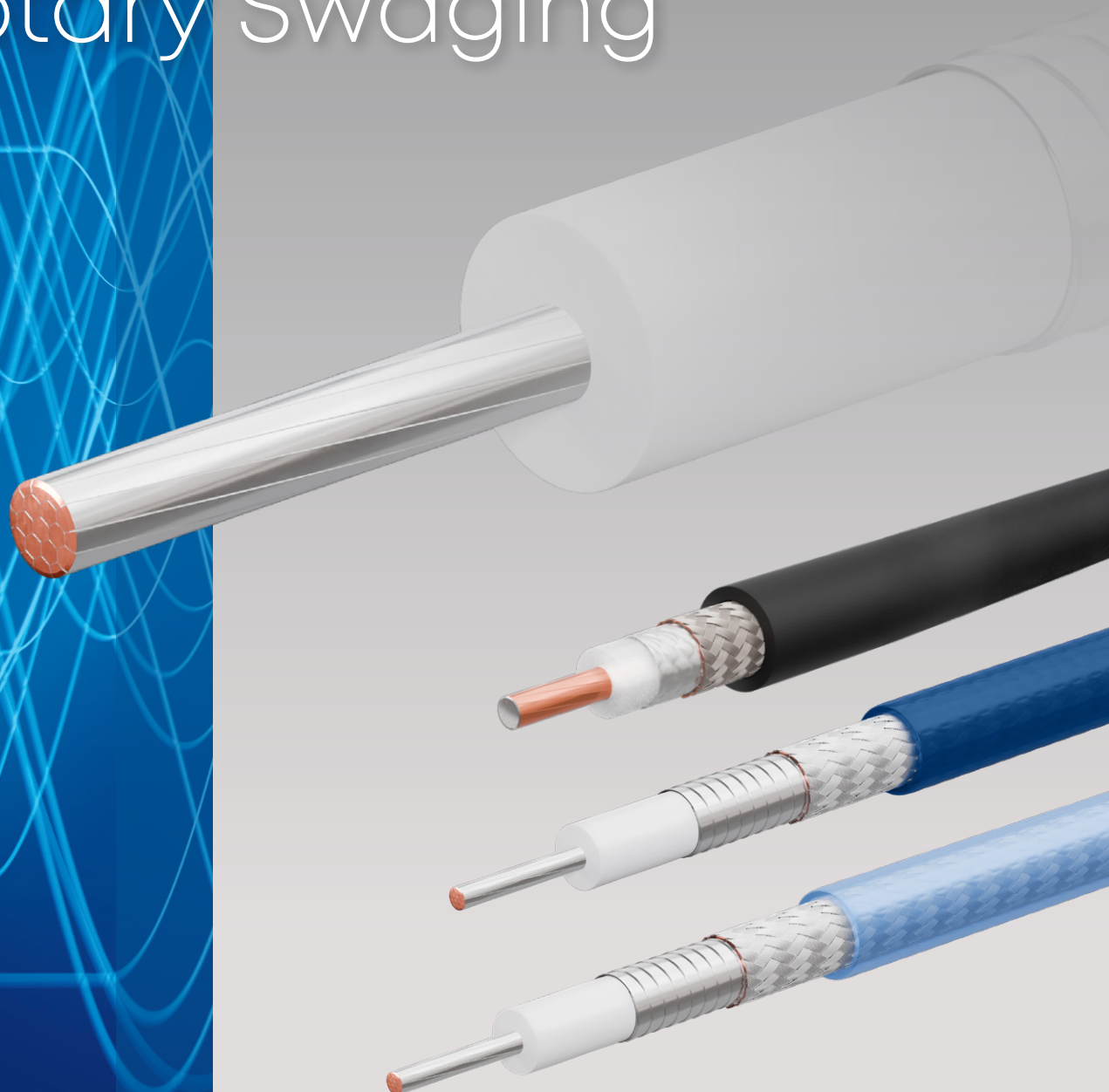


Maximum Flexibility. Minimum signal losses.

Rotary Swaging





A legacy of innovation and reliability

With decades of experience in RF connectivity, HUBER+SUHNER is a trusted partner for industries worldwide. Our patented Rotary Swaging technology reflects our commitment to innovation, quality, and customer success.

Discover how HUBER+SUHNER Rotary Swaging technology can transform your installation needs. Contact us today or visit our website to learn more.

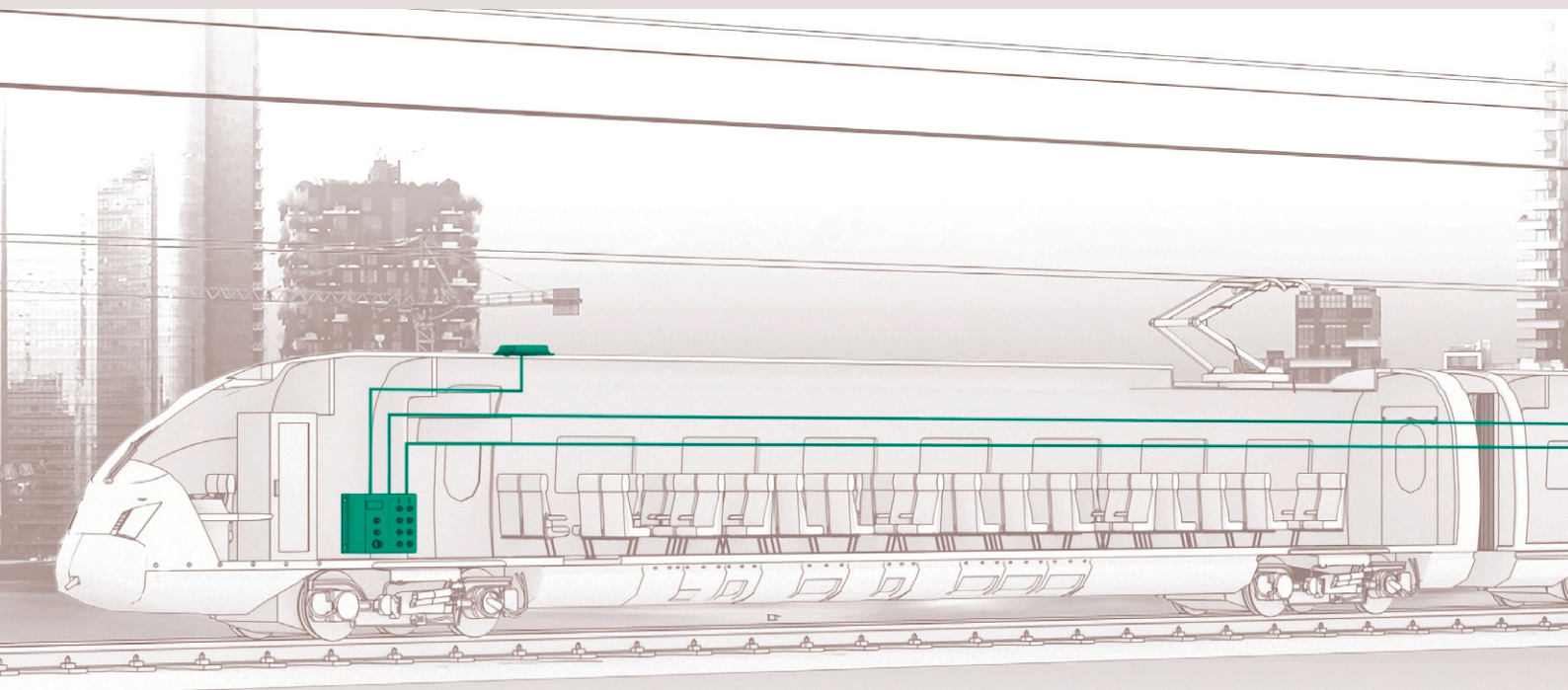
Rotary Swaging technology from HUBER+SUHNER is a landmark transformation of radio frequency (RF) coaxial cable design, that delivers exceptional electrical performance with outstanding flexibility. This innovation addresses the growing need for reliable connectivity in complex installations where space is limited and performance cannot be compromised.

The conventional trade-off in cable choices

Historically, engineers have faced a difficult choice regarding inner conductor design, while selecting coaxial cables and cable assemblies. One could either choose solid inner conductors for low loss or stranded conductors for flexibility, each choice presenting specific pros and cons. While solid wires deliver superior electrical performance, they're likely to be stiff and hard to install in tight spaces. Stranded wires on the other hand can offer flexibility that their solid counterparts don't, but they suffer from higher attenuation and reduced stability. HUBER+SUHNER Rotary Swaging technology eliminates this compromise by merging the benefits of both designs into a single unified solution.

How rotary swaging works

Rotary swaging is a process of mechanical deformation and is achieved by repeated blows to a conventional wire strand. The surface of the coaxial cable is smoothed out and prevents the occurrence of possible discontinuities, thereby reducing regular return loss peaks. This technology is a patented unique solution delivered by HUBER+SUHNER, reinforcing us as leaders in innovative interconnectivity solutions.

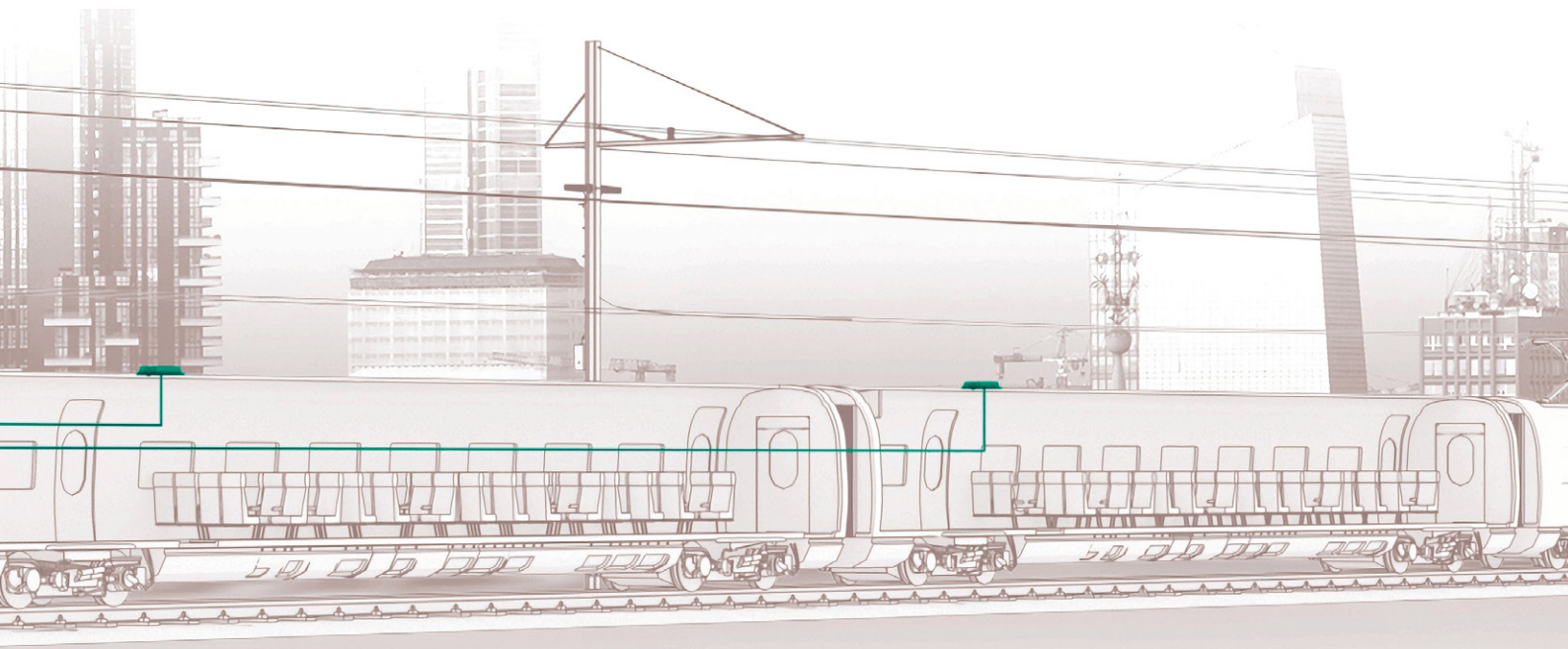


Rotary Swaging delivers superior performance

At HUBER+SUHNER, we've developed and delivered a patented process in rotary swaging, that minimises impedance variations and enhances return loss. Here's what makes our solution stand out:

- Integration - our rotary swaged coaxial cables make a marked difference with more simplified installations for complex environments that require high density, without sacrificing performance.
- Uncompromised flexibility – customers no longer need to select a cable of reduced diameter with higher losses, to achieve any required flexibility.
- Reduced losses - Our rotary swaged inner conductor delivers significant reduced losses compared to the equivalent stranded wires. As an example, at 1 GHz, the improvement is 11% while at 6 GHz, it is up to 12%, depending on the cable type selected.
- Improved return losses - Rotary swaging technology offers a more accurate control of the inner conductor's cross section along the length, compared to other stranded cables of equivalent diameter, minimising discontinuities and impedance variations.
- Outstanding phase and amplitude stability – Rotary swaging ensures a consistent performance under flexure, movement and tensile stress – which is ideal for high-precision applications.
- Long service life: Rotary swaged coaxial cables can withstand over 100,000 flex cycles for maximum reliability (in the case of our SUCOFLEX® MW assemblies), which is nearly 10 times longer than conventional cables, ensuring long-term reliability in demanding environments.

Losses reduced 11-12% on stranded wires
(depending on the cable selected)



Rotary swaged coaxial cable solutions, tailored to your needs

SPUMA – a flexible rotary swaged cable family

SPUMA cables from HUBER+SUHNER are expertly designed with our patented rotary swaging technology and enable ease in installation with outstanding low loss values and an excellent VSWR (Voltage Standing Wave Ratio).

Product code	Part number
SPUMA_240-RS-FR	85089188
SPUMA_400-RS-FR	85089191
SPUMA_600-RS-FR	85240547

They are easy to install and are optimized for low loss up to 6 GHz, featuring halogen-free materials and robust shielding. Ideal for railway and defense applications, our SPUMA cable portfolio (including a wide range of high-performance connectors) is available as either bulk cable or pre-assembled solutions.



SUCOFLEX® Coaxial Assemblies

Engineered for precision and durability, SUCOFLEX® assemblies deliver unparalleled performance, with phase and amplitude stability even under flexure. These assemblies deliver exceptional return and insertion loss, supporting frequencies of up to 70 GHz. Built with a rotary swaged low-loss inner conductor and a rugged construction, these assemblies can withstand more than 100,000 flexures without performance degradation, ensuring a long and reliable service life. Our SUCOFLEX® 526, 540 and 550 cables are widely recognised in both test and measurement applications, as well as high-speed digital environments. SUCOFLEX® 118 and 126 are MIL-qualified assemblies that are used worldwide in airborne, radar, and naval systems. These assemblies have proven to be reliable and capable of meeting the most stringent requirements in demanding applications, such as fighter jets, helicopters, UAVs, radars, phased array antennas, jammers, T/R modules, and several more!





5.2026

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HUBER+SUHNER is certified to ISO 9001, ISO 14001, ISO 45001, EN/AS 9100, IATF 16949 and ISO/TS 22163-IRIS.

Waiver

The facts and figures provided herein are for information only and do not represent any warranty of any kind.