

# SPINNER

## High-Power RF Transmission



High-Performance Waveguide and Coaxial Components



HIGH FREQUENCY PERFORMANCE WORLDWIDE  
[spinner-group.com](http://spinner-group.com)





# The SPINNER Group

For more than 75 years, the SPINNER Group has been setting new standards worldwide in high-frequency technology. Based in Munich with production facilities in Germany, Hungary and China, SPINNER currently has over 800 employees. Our international network of subsidiaries and distributors supports customers in over 40 countries.



HIGH POWER



BROADCAST



COMMUNICATION



TEST & MEASUREMENT



SATCOM/SPACE



INDUSTRY



RADAR

## Trusted High-Power RF Solutions for Over 50 Years

For over half a century, the SPINNER Group has been a trusted partner in high-power RF projects worldwide, delivering transmission lines, combining systems, loads, and other essential RF components.

Our solutions consistently meet the highest quality standards, supporting the complex demands of experimental fusion projects, synchrotrons, linear particle accelerators, and other industrial high-power applications.

SPINNER's team of qualified engineers and technicians brings decades of experience and deep expertise. We employ both commercial and proprietary state-of-the-art simulation software across RF, electrical, thermal, and mechanical domains. In-house testing with advanced measurement setups ensures thorough verification. Innovation is fueled by strategic partnerships and collaborations, all underpinned by rigorous quality assurance to maintain consistently high standards.

## Global Support with Manufacturing Plants in Europe and China

SPINNER maintains close relationships with its customers, supported by production facilities for high-power RF solutions in Westerham, Germany, and Shanghai, China. We also operate sales offices across Europe, the USA, and Australia, along with a global network of trusted sales partners.



# OFHC Copper R32 and R48 Waveguide Components



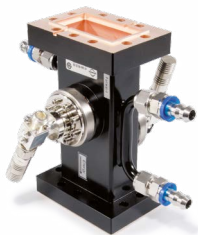
Photo: © Daniel Dominguez, Maximilien Brice / CERN

SPINNER has been supplying R32 components for numerous particle accelerator projects worldwide, supporting both fundamental research and applied science. Our high-quality RF components are trusted by leading research institutions for their reliability, precision, and ability to perform under extreme conditions.

We use high-quality OFHC copper and offer two material grades tailored to your specific application requirements:

Application	Waveguide Body	Flanges	Soldering
Ultra High Vacuum	OFHC Copper	Stainless Steel	Vacuum Soldering
Presurized SF6	OFHC Copper	Brass/Copper	Hard Soldering

## Comprehensive Portfolio of Components



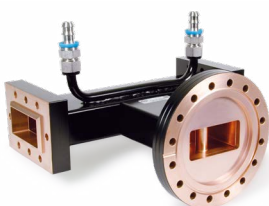
Measuring Couplers



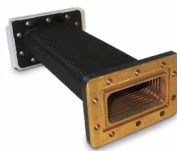
Phase Shifters / Variable Couplers



Loads



Pumping Ports



Flexible Lines



Adapters



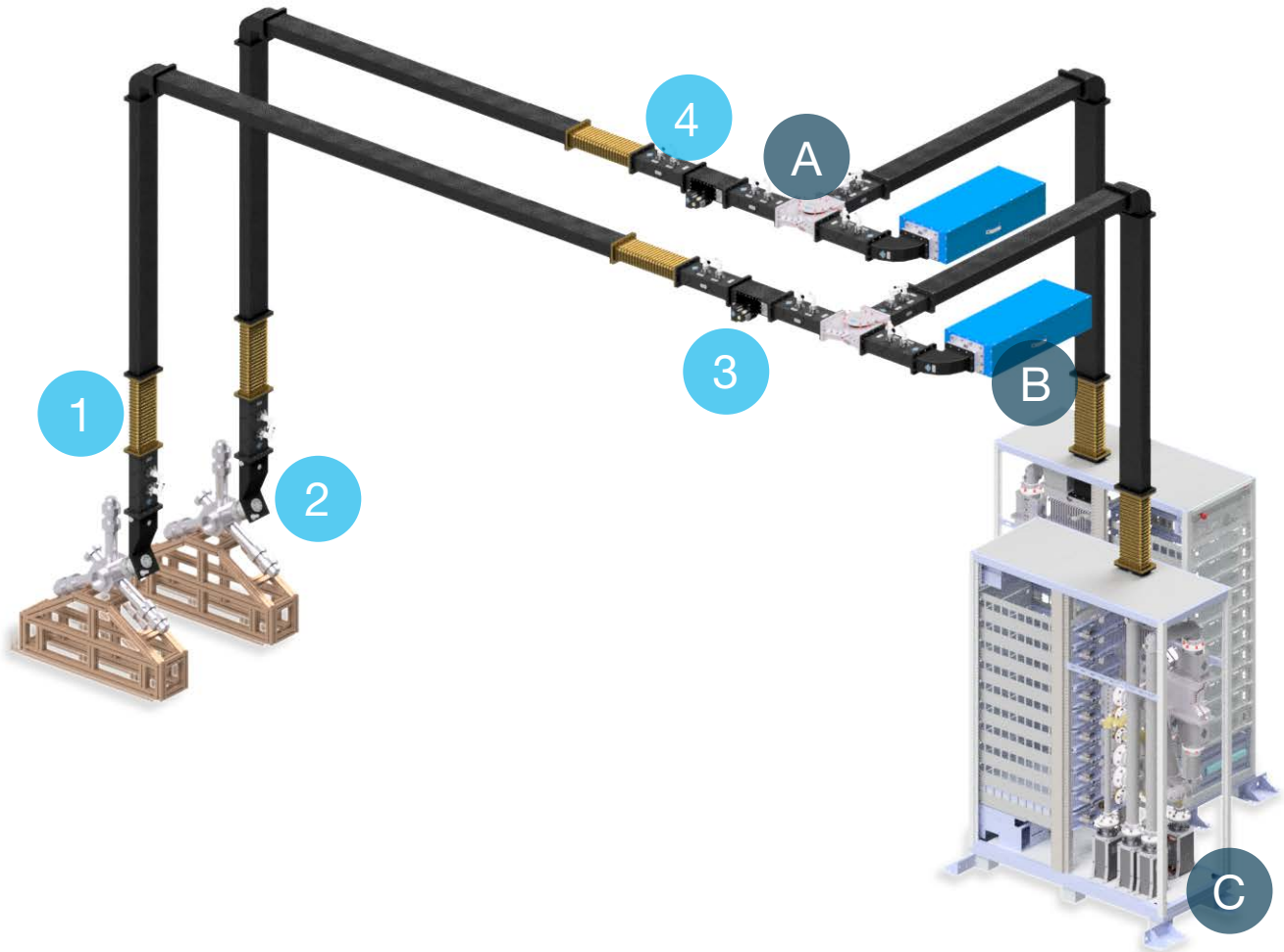
RF Windows



# Aluminum R3 to R26 Waveguide Components

SPINNER has developed an entirely **new portfolio of waveguides**, including functional components such as loads, circulators, combining systems, and phase shifters.

We can also **customize these products** to meet your specific requirements—or even **develop entirely new solutions** in a very short time.



## Full Range of Components

In addition to standard connecting elements such as straight sections and H- or E-plane elbows, we offer a comprehensive range of products—including custom-made adapters and shutters.



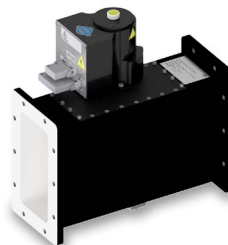
Flexible Lines

1



Custom-Made  
Waveguide-to-Coax Adapters

2



Automatic Shutters

3

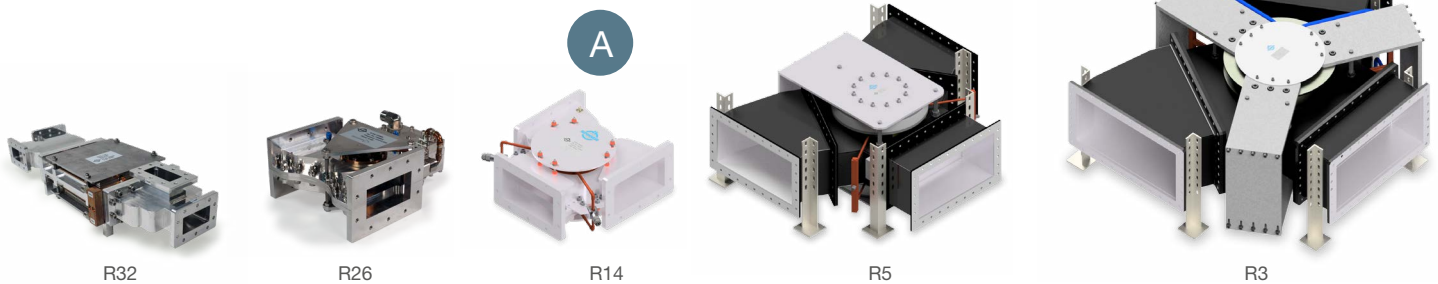


Measuring Couplers

4

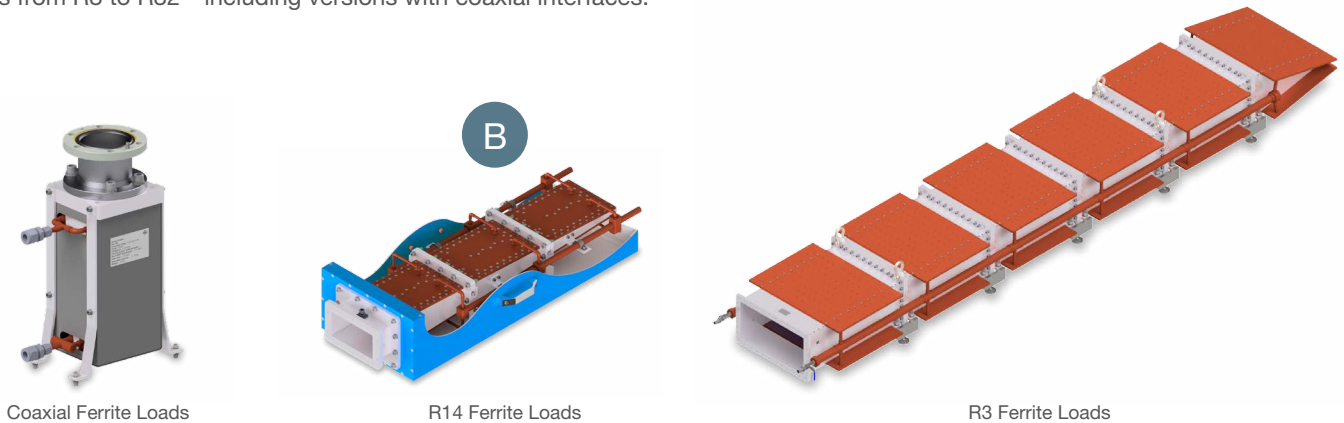
## Circulators

We have developed a comprehensive portfolio of circulators, some of which are already successfully installed at customer sites, meeting the most demanding technical requirements.



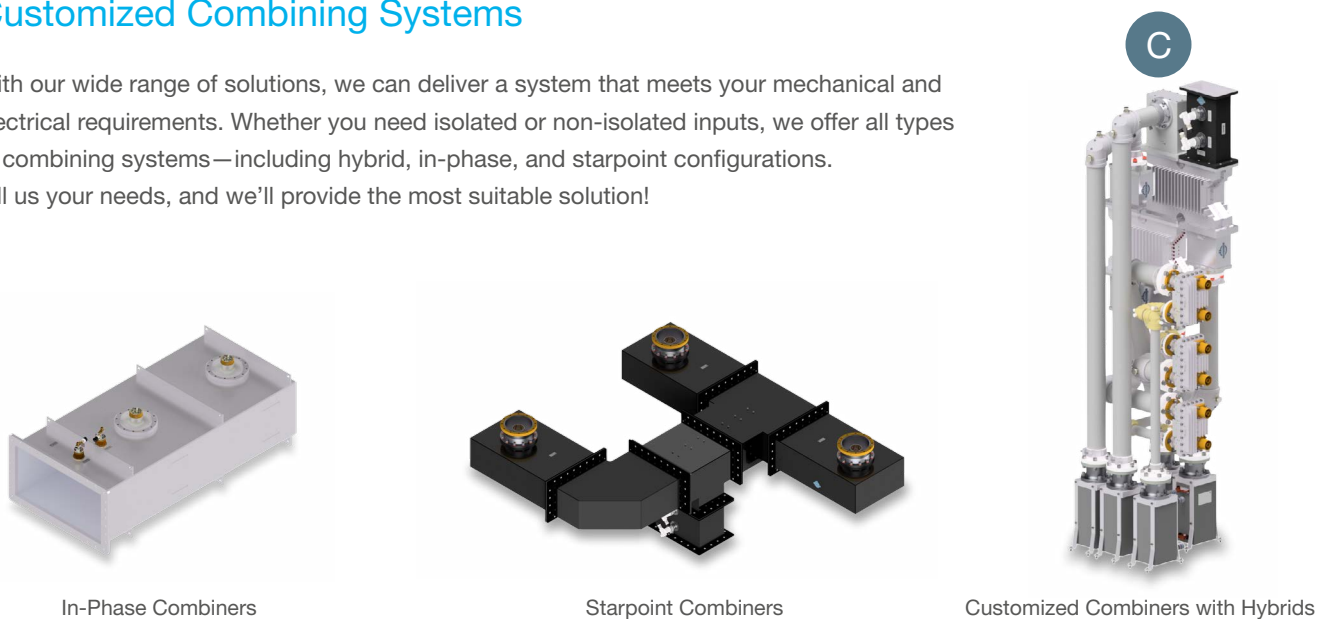
## Ferrite Loads

We offer a full range of ferrite loads, precisely tuned to your required frequency, available in all sizes from R3 to R32—including versions with coaxial interfaces.



## Customized Combining Systems

With our wide range of solutions, we can deliver a system that meets your mechanical and electrical requirements. Whether you need isolated or non-isolated inputs, we offer all types of combining systems—including hybrid, in-phase, and starpoint configurations. Tell us your needs, and we'll provide the most suitable solution!




# Coaxial Components - Ranging from 7/8" to 12"

In addition to our extensive broadcast EIA coaxial portfolio, we also offers **specially developed coaxial components** for **big science applications**, available in 9" and 12" sizes, with 50 Ohm and other **custom impedances**. From attenuators to loads, our products ensure optimal power handling and efficiency. Trust SPINNER for innovative RF solutions that keep your systems running strong, even under the most demanding conditions.




## 9" and 12" Interfaces, 50 Ohm\* – Enhanced Power Line with Liquid-Cooled Inner Conductor Available

### 9" Interface

Quick Clamp	Easy installation system optimized for radio stations	 RL100-230LC - female (NEW)
9 3/16"	Standard 9" with 20 screw-fixing flange and optional contact shim	
RL100-230	Optimized installation 8 screw-fixing flange with contact shim	
RL100-230LC <b>NEW</b>	Enhanced power line with <b>liquid-cooled</b> inner conductor	

### 12" Interface

RL133-306LC <b>NEW</b>	"Lighter" 12" with <b>liquid-cooled</b> inner conductor	 RL133-306LC - male (NEW)
RL150-345	SPINNER classic 12" Standard	

\*Other impedances on request







Hybrid Couplers



Soda Units



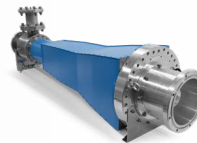
T-Connectors



Splitters / Combiners



Coupling Elements



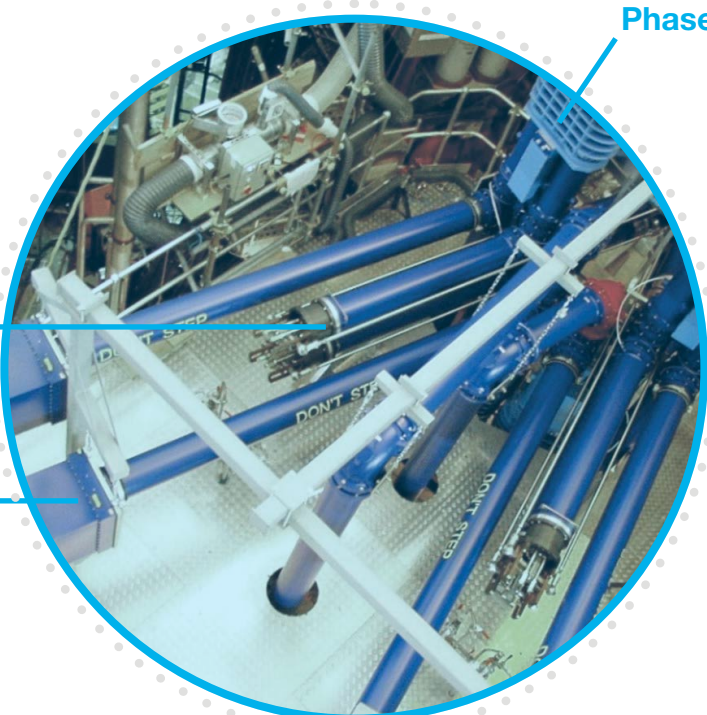
Soda Loads



Switches



Circulators



Phase Shifters

Service Stubs

Stub Tuners



## HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

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