

**Be**  
brilliant

**XSYS**

Print solid. Stay flexible.

## **Customised Solutions for Sleeves and Adapters**



rotec<sup>®</sup> sleeves and adapters  
for flexographic printing

# rotec® Sleeves & Adapters for Flexographic Printing

XSYS manufactures rotec® sleeves and adapters customised for all flexo printing presses, as well as several specialty applications.

## Extensive Experience

rotec® sleeves and adapters have been in use around the world since 1990, with state-of-the-art, quality production facilities in Germany and the United States. Through innovations and a continuous improvement process of sleeve and adapter technology, cost efficiency, service and ecological responsibility, rotec® sleeves and adapters became the number one in terms of effectiveness, reliability and convenience in daily practice.

## A Committed Team

Standing behind our quality products is also a strong team listening to our customers in order to provide innovative solutions and reliable service. Our commitment towards our customers to continuously improve our products and services drives our objective of making our products and services **better, faster and easier to use.**



## Customised Solutions

Every single printing sleeve and adapter is **tailor-made according to your needs.** You can choose between various rotec® sleeves, depending on your application needs. In addition, you can build your own customised rotec® adapter from the choice of base materials, air distribution systems, and air source, specific to your individual press operation. And, with a selection of quality upgrade options, you can further design the optimal sleeve or adapter for your individual requirements.



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brilliant.

## Technical Solution Provider

At XSYS, we utilize our vast global market intelligence combined with technical expertise to provide **market-oriented and innovative solutions**. Whether customer service, sales, or production, empowered people are our greatest asset. This enables our customers to better position themselves to address present and future emerging market realities.

The rotec® product line is ever expanding in an effort to provide customers with the solutions they need. With **new product developments**, customers can significantly improve print performance, press productivity, as well as operator health and safety.

A perfect example is the **innovative rotec® Eco Bridge** air distribution option for adapters. Instead of air holes, a breathable metal ring at the operator side creates an air pillow to allow easy and fast mounting of sleeves.



*XSYS listens to the customer in an effort to provide innovative solutions and optimized operations.*

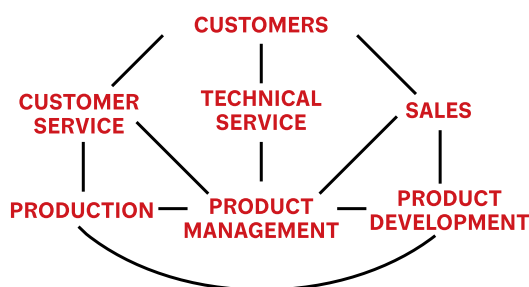
## Dedicated Product Development

With diverse backgrounds in physics and mechanical engineering, the rotec® sleeves and adapters product development team has a fresh perspective on the construction of sleeves and adapters. Based out of the Technology Center in Ahaus, Germany, their energy and enthusiasm for out-of-the-box thinking has contributed to the thriving stream of new products now available to the market.



*At rotec®, we always strive for the best possible way to develop innovative and state-of-the-art products.*

Our product development team is using the momentum of these products and continuing to intensively develop real solutions focused on what is important and relative to the flexo market.



At XSYS, we listen to our customers and through several pathways of communication back to a strong technology development team, make the solutions for the flexographic **press a reality**.

XSYS





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Our Product Development Team is focused on developing products to help the customer work smarter, faster and easier. The rotec® Smart Premium Sleeve, for example, is an excellent solution for improved efficiency and easier handling at the printer.














- Uwe Müller, XSYS,  
Product Development Manager



# rotec® Sleeves

rotec® sleeves are high-quality sleeves to be used for conventional flexo plate-mounting, as well as other speciality applications. They allow plate-mounting outside the press and can be combined with various adapters.

- + Easy and reliable handling with all plate types
- + Tight tolerances with high-precision grinding (TIR ≤ 0.02 mm, measured on carrier cylinder at TIR ≤ 0.005 mm) and length according to DIN ISO 2768 1c
- + Proven rotec® interior design of synthetic resin and glassfibre compound to ensure long-lasting and consistent mounting characteristics
- + High durability and stability
- + Specialty sizes for wall thickness and length options available upon request

	Wall thickness				
rotec® Blue Light Sleeve	0.9 mm - 125 mm				Ω
rotec® Smart Sleeve	9.5 mm - 125 mm				Ω
rotec® Smart Premium Sleeve	7.5 mm - 125 mm				Ω
rotec® Lightweight Premium	30 mm - 125 mm				Ω
rotec® Compressible Sleeve	2.9 mm - 125 mm				Ω
rotec® Offset Sleeve	14.5 mm - 125 mm				
rotec® Base Sleeve	0.8 mm - 2.2 mm				Ω
rotec® Cover Sleeve	0.8 mm				



**Superior Dimensional Stability:**  
These products provide superior dimensional stability because the sleeve construction includes an additional glassfibre barrier layer to prevent any growth.



**High Speed:**  
These products are ideal for high-speed press applications because the construction and materials of these sleeves provide bounce reduction properties.



**Compressible:**  
These products have a compressible outer surface for optimized printability.



**Lightweight:**  
These products are an advantage for the press operator by being easier to handle. This comes from reduced weight and easier mounting properties.



**Easy-mount Technology:**  
New easy-mount technology was developed for these products using advanced materials and state-of-the-art sleeve construction to make mounting easier for the press operator.



**Conductive Option:**  
Available with rotec® Ω Technology that provides complete conductivity from the base sleeve through to the surface. See upgrade section for more information.

# Choose Your Own rotec® Sleeve

Every sleeve is tailor-made according to your needs. Nearly all lengths and diameters are available. In addition, you can choose several upgrade options.



## rotec® Blue Light Sleeve

### The benchmark in plate mounting

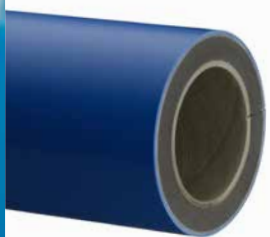
- + Superior service life and outstanding durability
- + Consistent and long-lasting mounting and clamping characteristics
- + Easy and reliable handling



## rotec® Smart Sleeve

### Next generation polyurethane technology

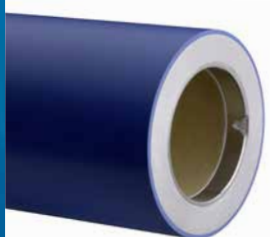
- + Weight optimized with up to 30% reduced weight compared to rotec® Blue Light Sleeve
- + Newly developed easy-mount technology
- + Specialized sleeve construction for bounce reduction and >35% faster press speeds
- + Re-designed formula for improved dimensional stability and longer lifetime



## rotec® Smart Premium Sleeve

### rotec® Smart Sleeve with superior dimensional stability

- + Weight optimized with up to 25% reduced weight compared to rotec® Blue Light Sleeve
- + Constant outer diameter (TIR < 0.02 mm) at fluctuating temperatures or humidity
- + Specialized sleeve construction for bounce reduction and >35% faster press speeds



## rotec® Lightweight Premium Sleeve

### Easier handling with superior dimensional stability

- + Up to 50% weight reduction compared to rotec® Blue Light Sleeve
- + New lightweight polyurethane intermediate layer
- + End plate sleeve edge sealing for long lasting protection





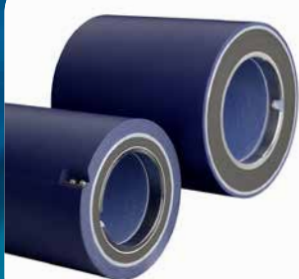


## rotec® Compressible Sleeve



### Unique compressibility

- + Long-lasting compressibility, excellent bounce-back properties
- + Plate and tape savings, print consistency with long print runs
- + Low dot gain, best solid ink density on irregular substrates



## rotec® Offset Sleeves



### Durable, solid construction

- + Offset plate and blanket sleeve set specifically designed for web offset presses
- + Allows extremely quick format changes for all repeat sizes
- + Lasting dimensional stability, even at high temperatures and torque forces
- + Perfect resistance to UV inks, solvents, and humidity

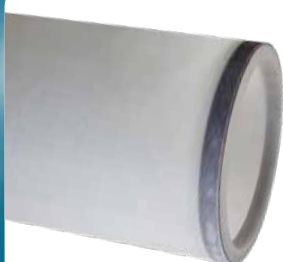


## rotec® Base Sleeve



### Extremely durable

- + Optimal stability with low weight for bonding with coating materials
- + Robust and durable over long time period
- + Fibreglass for perfect bonding characteristics with different coating materials



## rotec® Cover Sleeve



### Sleeve to protect products with high-end surfaces

- + Protection of anilox and other valuable products during storage and transport
- + Rubber ring on the end to hold the cover sleeve in place
- + Extra long life due to excellent durability



## nyloflex® ITR Sleeve



### In-the-round ready-to-image photopolymer sleeves available as nyloflex® ITR Thin or nyloflex® ITR Classic

- + Combines advantages of XSYS's dedicated photopolymer plate technology with vast experience in production of sleeves
- + Perfect for endless designs and seamless printing
- + Several available wall thicknesses to match required job specifications

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I believe the rotec® Eco Bridge will become the new standard of our industry.

- Silvia Cristina Kabus,  
XSYS, Sales Director





# rotec® Adapters

rotec® adapters are high performing products to reduce the wall thickness in order to improve weight and handling of plate mounting sleeves. They are tailor-made according to the customer specifications. Choose a rotec® adapter for bridging diameter differences between air cylinder and sleeve.

- + Quick set-up times, easy handling and cost savings
- + Innovative air conduction system for easy mounting of sleeves
- + Suitable for quick change cantilevered machines and conventional cylinder presses
- + Tight tolerances with high-precision grinding (TIR ≤ 0.02 mm, measured on carrier cylinder at TIR ≤ 0.005 mm) and length according to DIN ISO 2768 1c
- + Proven rotec® interior design of synthetic resin and glassfibre compound to ensure long-lasting and consistent mounting characteristics
- + Specialty sizes for wall thickness and length options available upon request

	Wall thickness				
rotec® Bridge Adapter	4.7 mm - 11 mm				Ω
rotec® Unifit Adapter	7.9 mm - 80 mm	☂		Ω	☼
rotec® Airo Adapter	16 mm - 125 mm	☂		Ω	☼
rotec® Atlas Adapter	16 mm - 125 mm	☂	✍	⚙	Ω ☼
rotec® CFX Adapter	16 mm - 125 mm	☂	✍	⚙	Ω ☼
rotec® ULW Adapter	30 mm - 125 mm	☂	✍		Ω ☼
rotec® H/C Bridge Adapter	4.7 mm - 11 mm			⚙	Ω
rotec® H/C Unifit Adapter	11 mm - 80 mm	☂		⚙	Ω
rotec® H/C Airo Adapter	17.5 mm - 125 mm	☂		⚙	Ω



**Superior Dimensional Stability:**  
These products provide superior dimensional stability because the sleeve construction includes an additional glassfibre barrier layer to prevent any growth.



**Lightweight:**  
These products are an advantage for the press operator by being easier to handle. This comes from reduced weight and easier mounting properties.



**High Speed:**  
These products are ideal for high-speed press applications because the construction and materials of these sleeves provide bounce reduction properties.



**Compressible:**  
These products have a compressible outer surface for optimized printability.



**Eco Bridge Option:**  
Available as Eco Bridge version, which uses patented air distribution system for significantly easier sleeve mounting. See adapter section for more information.



**Conductive Option:**  
Available with rotec® Ω Technology that provides complete conductivity from the base sleeve through to the surface. See upgrade section for more information.

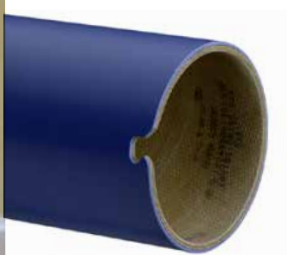
# Build Your Own rotec® Adapter

Choose from the different base materials, then add your desired air distribution and air source. Nearly all lengths and diameters are available. In addition, you can choose several upgrade options.

## Base Material



Functional base material used in the construction of the adapter to achieve the required characteristics needed for specific press applications

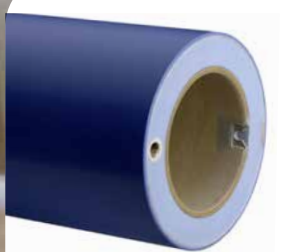


### Polyurethane Adapter

#### rotec® Adapter

The perfect fit for every cylinder configuration

- + Standard adapter for the flexographic industry
- + High durability and stability
- + Several air supply alternatives available to meet press-specific requirements

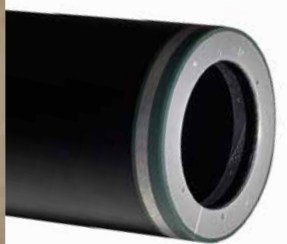


### Lightweight Polyurethane Adapter

#### rotec® ULW Adapter

The ultra-lightweight option for adapters

- + Up to 65% weight reduction compared to similar adapters
- + Available as Unifit or Airo versions for customised air transfer system
- + Application in press or plate-mounting equipment

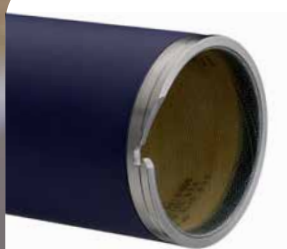


### Carbon Fibre Adapter

#### rotec® Atlas Adapter / rotec® CFX Adapter

High modulus carbon fibre adapter for maximum printing performance

- + For high printing press speeds and outstanding printing results
- + Vibration dampening characteristics due to **high-modulus** carbon fibre structure
- + Significantly lighter than conventionally manufactured products - especially with larger wall thicknesses
- + Available as Unifit or Airo versions for customised air transfer system



### Compressible Adapter

#### rotec® H/C Adapter

Compressible adapters to mount In-The-Round sleeves

- + Exclusive compressible anti-slip surface
- + Consistent and long term printing performances especially for long print runs due to bounce-back properties of the compressible surface
- + Available with customised air conduction system

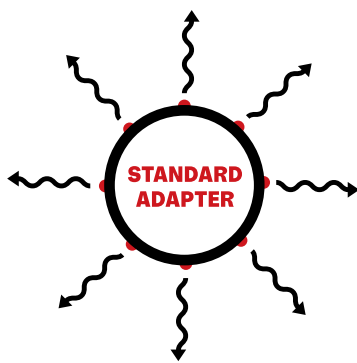


## Air Distribution



How the air flows out of the adapter, in order to mount the sleeve

### Standard Air Holes



4-8 air holes on operator side, additional holes along the length of the adapter

### Eco Bridge - breathable metal ring



Breathable metal ring along the entire circumference of the adapter on the operator side. Eco Bridge can be used with an Airo or Unifit Air Source and no additional air holes are typically needed along the length of the adapter.

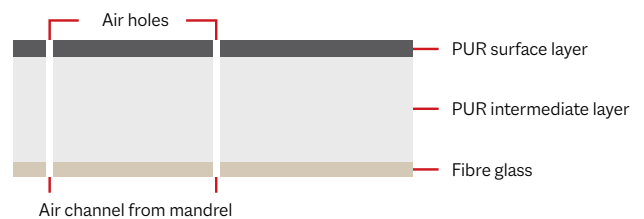
- + Up to 90% less compressed air needed for easy sleeve mounting and 99% reduction in noise
- + Increased efficiency for cost savings and improved productivity
- + Alternative Eco Xtra Ring with mounting efficiency benefits of Eco Bridge, PLUS protection against wear for longer product lifetime.

## Air Source

How the air flows into the adapter

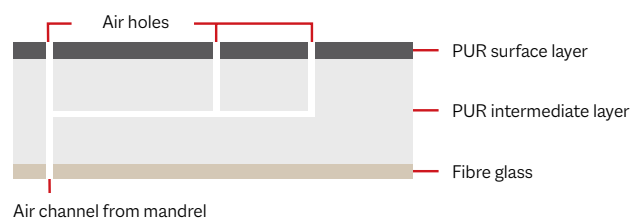
### Bridge

For wall thicknesses below 10 mm. Conducts air from the air cylinder to the surface via air holes.



### Unifit

Customised air transfer system for most types of air cylinders. In the Eco versions, the air holes are replaced by a breathable metal ring on the operator side.



### Airo

Dedicated external air connection system. In the Eco versions, the air holes are replaced by a breathable metal ring on the operator side.





# Upgrade Your Own rotec® Sleeve or Adapter

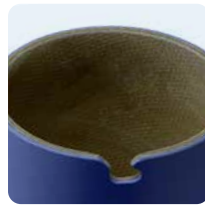
Need something more than the standard rotec® products?

## Let's upgrade you!

XSYS has several high-quality upgrade options to customise your sleeves and adapters for your individual press and job specifications. If you can imagine it, we will do everything we can to make it happen. With years of experience, we are able to provide flexible solutions for most all needs and requirements. Each sleeve and adapter is configured new for each order, just for you!

### Notch Options

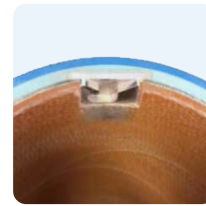
- + Notches ensure safe and accurate positioning of the rotec® sleeves and adapters
- + Standard and interlock available in standard and specialty dimensions
- + Notch type options: grinded notch, metal-reinforced notch, & composite notch (interlock only)



Grinded Notch



Metal-reinforced Notch



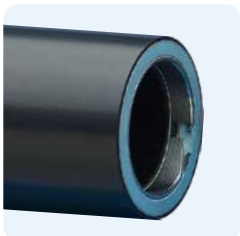
Interlock Notch



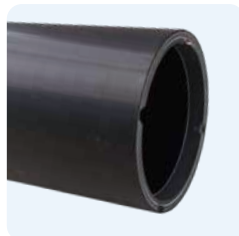
Composite notch

### Ring Options

- + Rings ensure safe and accurate positioning of the rotec® sleeves and adapters and provide extra protection of the base sleeve edge
- + Inner ring material options: stainless steel and PVC
- + Outer ring with or without end stop
- + Eco Xtra Ring: with mounting efficiency benefits of Eco Bridge, PLUS reduced wear and longer lifetime
- + Pull ring used with heavy sleeves (i.e. offset) and automatic mounting robots



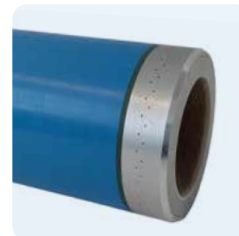
Inner Ring - Stainless Steel



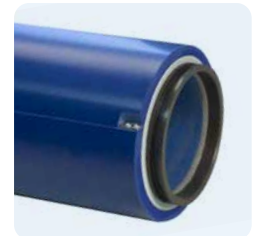
Inner Ring - PVC



Outer Ring - Stainless Steel



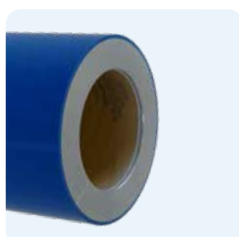
Eco Xtra Ring



Pull Ring

### End Plates & End Stop

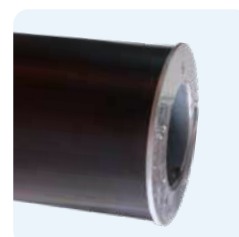
- + End plates (aluminium or compressible) available to protect the base and the edge of the sleeve
- + End plate with end stop
- + Soft stop used to mount ITR sleeves



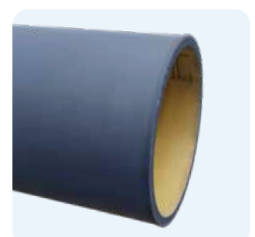
End Plate - Aluminium



End Plate - Compressible



End Plate with End Stop



Soft Stop

#### Why is conductivity needed?

Grounding all parts of the printing press, including the sleeves and adapters, prevents fires and explosions. This is a danger when using solvent-based inks with a flash point below 55°C.

#### How is rotec® Ω Technology for conductivity better than alternatives?

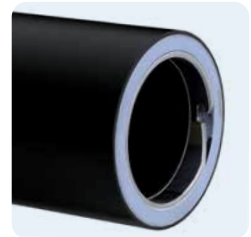
The rotec® Ω Technology provides conductivity from the base sleeve through to the surface. Alternative conductive sleeves and adapters often have only a spring-mounted ball bearing grounding only the conductive surface of the product to the press's air cylinder. If the spring breaks or the surface is compromised, this sleeve would no longer be conductive.

#### 10-year warranty:

The rotec® Ω Technology offers a 10-year warranty for conductivity because there are no parts to wear out. The sleeve or adapter will maintain conductivity.

### Conductivity: rotec® Ω Technology

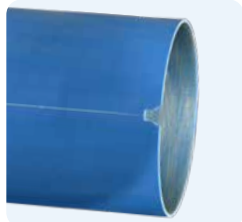
- + 10-year warranty for conductivity
- + Complete conductivity of the inner construction through to the surface makes it the safest product on the market
- + Complies with the regulations of ATEX EU Directive No. 2014/34/EU (formerly ATEX 95) for electrostatic derivation ability



rotec® Ω Technology

### Registration & Mounting Tools

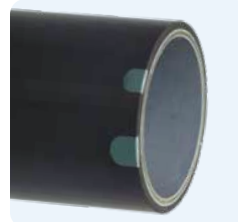
- + Registration tools aid in faster mounting and print job set-up for increased press productivity
- + Scribe lines, register pins, registration systems with GPS / RFID
- + Specialty pins & spacers for mounting multiple-length sleeves on one adapter



Scribe Line



Register Pin



Registration System



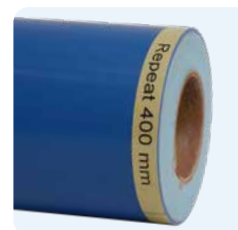
Registration Label

### Labeling

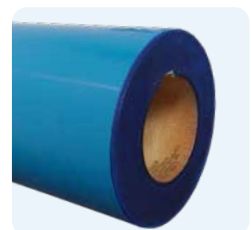
- + Laser engraving included on all rotec® bases with key sleeve specifications
- + Label strips can be used with water-based ink applications to help quickly identify required sleeves
- + Painted edges for easy sleeve identification available in red, green, and blue (solvent resistant, suitable for use with all ink types)



Laser Engraving



Label Strip



Painted Edges

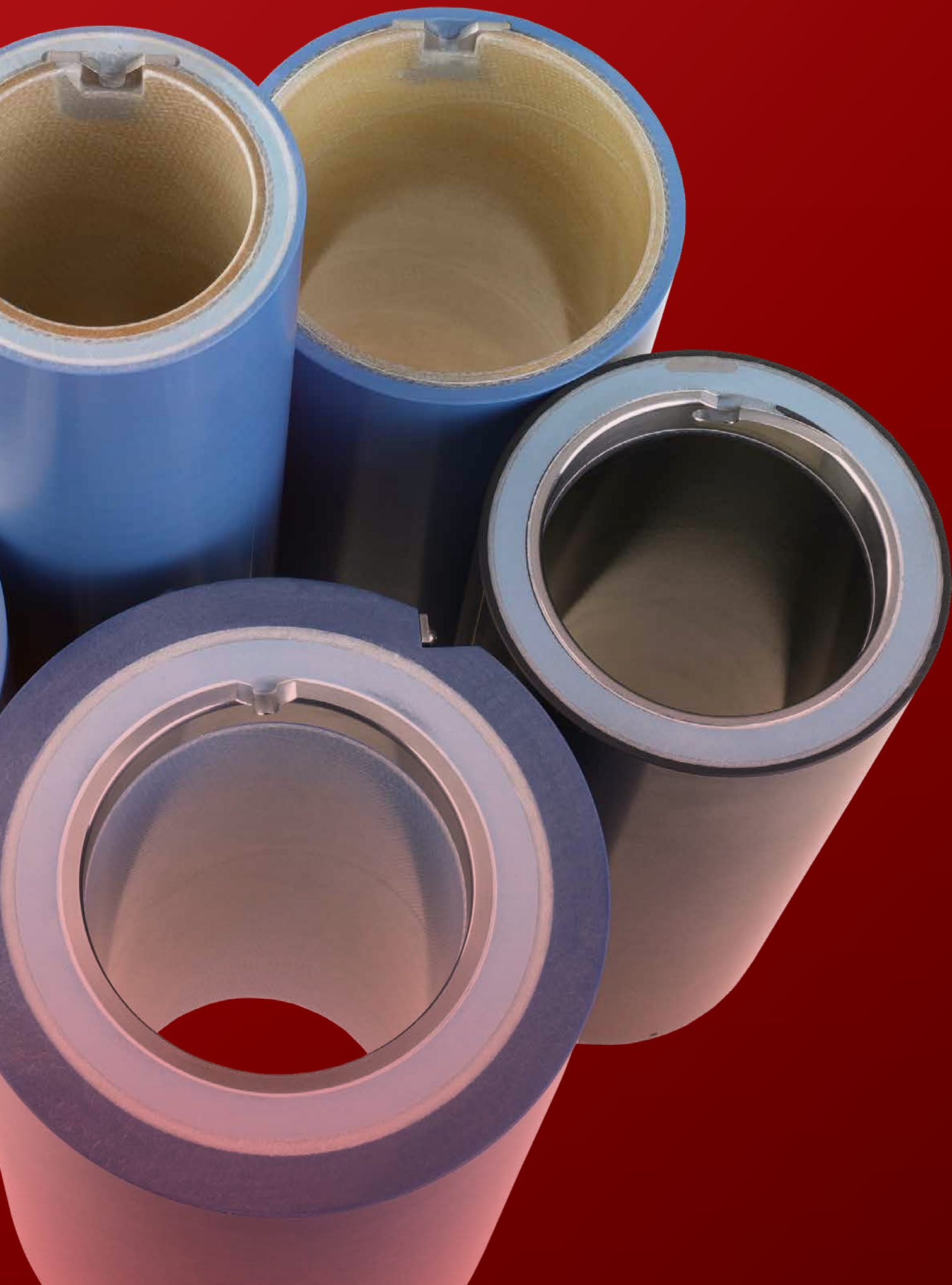
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Global production of rotec® sleeves and adapters make the variety and possibilities for our customers virtually endless.

- Patrick Lüdecke,  
XSYS, General Manager Sleeves







Where **printing**  
meets **packaging.**



Where **expertise**  
meets **freedom.**

**Please contact us for additional information.**

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