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ROTOMETAL
we are for print

**Composite
Tooling**
2024

About us

Rotometal is a leader among European rotary tooling suppliers. Nearly 20 years of experience has helped us build an invaluable knowledge base that allowed us to establish a strong position in an extremely demanding market.

Here at Rotometal, we aim for continuous and sustainable growth. Our mission is to supply top quality products, at an affordable price, within an industry leading time frame.

Our Mission

Rotometal enables success with innovative and high-quality tools, while improving, expanding and creating value for the industry and stakeholders.

Our Vision

Driven by our passion for delivering high-quality and durable products that cater to the diverse needs of our customers, we constantly strive to push the boundaries of what's possible. We firmly believe that innovation is not just a choice but a necessity in our pursuit of excellence and long-term sustainability.

Through continuous investment in research and development, we explore cutting-edge technologies and materials to enhance our performance and efficiency. Our dedication to innovation allows us to stay ahead of the curve and maintain our position as a leader in the industry.



Our strengths

Cutting units • Cutting technology
Printing technology • Accessories

Our customers are mainly printers, but also the world's largest manufacturers of printing and converting machines. Most of the production is exported, but a large part of it remains in Poland. Precise workmanship, maintaining high quality of offered products at every stage of production, competitive price, have enabled the company to compete with the largest suppliers of this type of tools in the world.

Our strengths are:

- Ability to form long-term partner relationships with our customers
- Providing optimal manufacturing technology
- Great commitment to innovation
- Having our own in-house Design Engineering department
- Machine park equipped in modern CNC machinery
- Offering short lead times



Scan me for a factory
and product tour

Our Business Units

In an effort to streamline and optimize our operations, we've undertaken a strategic initiative to divide our business into three core units, each specializing in key aspects of our product offerings and market segments. This division aims to enhance our focus, efficiency, and customer-centric approach across various facets of our business.

The first core unit will revolve around hard tooling, encompassing our flagship products such as magnetic cylinders, anvil cylinders, print cylinders, and gears. These are the foundational elements of our manufacturing process, essential for precision and quality in various industries. By dedicating a specialized unit to hard tooling, we aim to prioritize innovation, quality control, and customer satisfaction within this critical segment of our product portfolio.

The second core unit will be dedicated to composite tooling, with a primary focus on composite sleeves tailored for both wide web and narrow web applications. Composite tooling plays a pivotal role in addressing the evolving needs of our customers, offering versatility, durability, and superior performance in demanding production environments.

The third core unit of our business will be dedicated to consumable products, with a primary focus on inks and varnishes. This unit represents a crucial aspect of our value chain, providing essential materials for printing and packaging applications across various industries.

Magnetic Cylinders
Anvil Cylinders
Print Cylinders
Accessories
Hard Tooling



ECO Sleeves
ANTISTATIC Sleeves
Hydrophobic Sleeves
Composite Tooling



rotoINK
rotoVARNISH
Consumable Products



rotoSLEEVES

Narrow & Wide Web

rotoSLEEVES are composite, ultra-light Printing Cylinders.

Using the latest composite production techniques, we produce our sleeves from the composite itself. This allows the use of other materials such as PET, Polyurethane, Polyester or very durable Epoxy resins.

Our sleeves work with the following substrates:

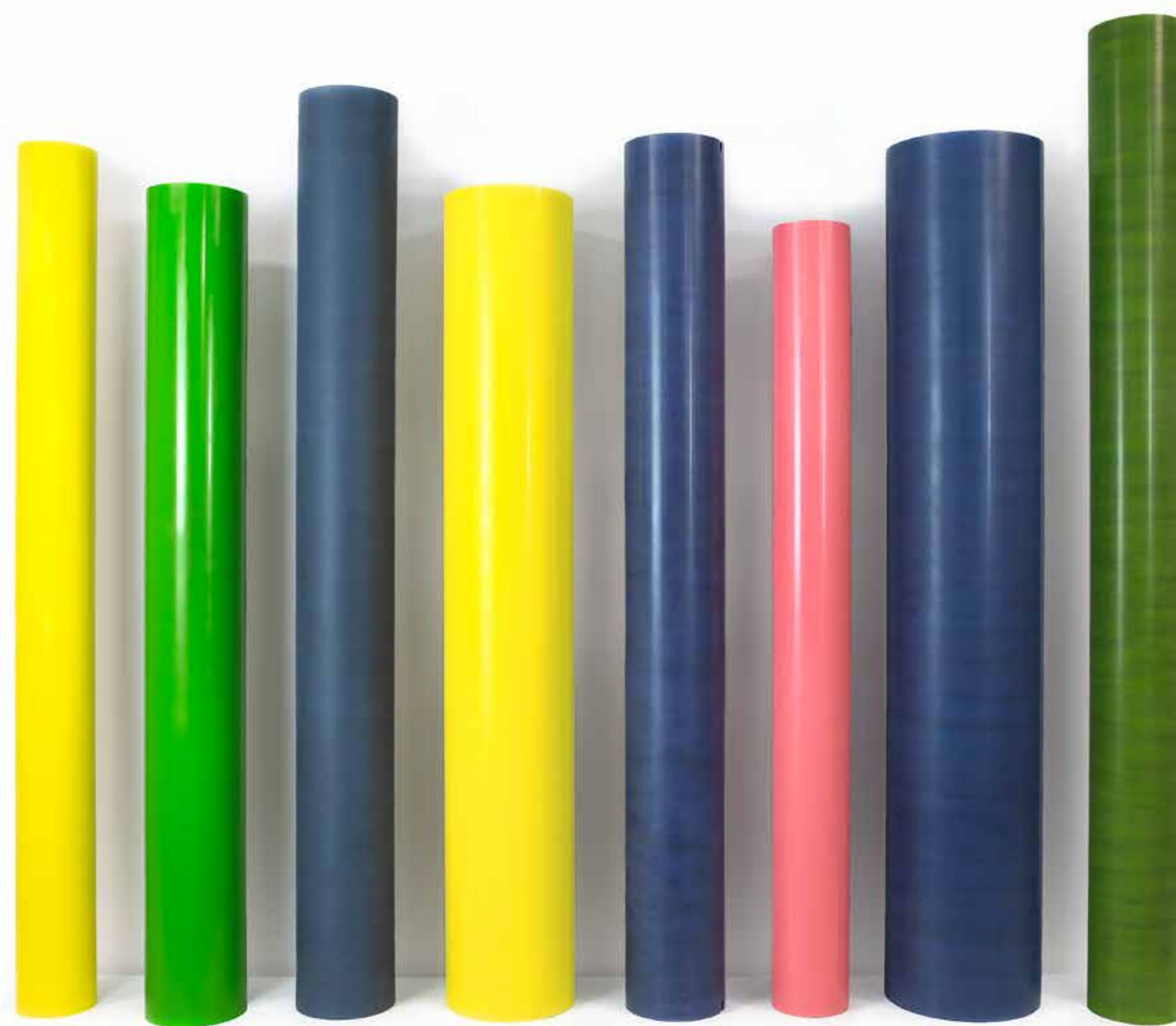
- PE
- PP
- PVC
- PET
- LDPE
- OPP
- HDPE
- PVC
- PAPER
- RETRACTABLE FILM
- ALUMINUM
- BOPP

Our sleeves work with the following inks:

- Water-based
- Solvent-based
- UV
- EB

Additional features:

- Rubber ring to protect the sides from shocks
- Customization
- Codes, names can be engraved
- RFID chip
- Notches of different types, also on both sides



DFTA Test

The inks:

- Solvent-based

Printer:

- BOBST F&K Flexpress 6S/8

Technical data:

- Eight printing units
- Width 1300mm - Printing width 1285 mm
- Max print speed 500 m/min
- Solvent-based inks
- Anilox: 420 L/cm; 3,6 cm³/m² (Width 1330 mm / Diameter 162,36 mm)
- Hard plates used – Digital ACE 1.14
- Hard adhesive used – DuPont DPR 045

The result:

- Colour deviation: Rotometal 0,07 vs. Competitors 0,100
- Less rebound
- Smooth print performance
- High overprint compensation and speed variations
- Impressive stability at 500 m/min – vibration absorption
- Good contrast

DFTA



rotoSLEEVES
Comparison

	Aluminium Antistatic	Aluminium Anodised	Aluminium Standard	GlassFiber	Antistatic	ECO Antistatic	ECO	Hydrophobic	
Inner core base layer									Inner core base layer
Glass fiber	✓	✓	✓	✓	✓	✓	✓	✓	Glass fiber
Epoxy resin	✓	✓	✓	✓	✓	✓	✓	✓	Epoxy resin
Bisphenol F	✗	✗	✗	✗	✗	✓	✓	✗	Bisphenol F
Conductive auxiliary material	✓	✗	✗	✗	✓	✓	✗	✗	Conductive auxiliary material
Compensation base layer									Compensation base layer
Elastomeric polyurethane material	Vulkollan	Vulkollan	Vulkollan	Vulkollan	Vulkollan	Vulkollan	Vulkollan	Vulkollan	Elastomeric polyurethane material
Volume layer									Volume layer
3D Core Honeycomb	n/a	n/a	n/a	PET	PET	100% rPET	100% rPET	PET	3D Core Honeycomb
PU Rigid Foam	n/a	n/a	n/a	PU	PU	ECO PU	ECO PU	PU	PU Rigid Foam
Outer base layer									Outer base layer
Glass fiber	✓	✓	✓	✓	✓	✓	✓	✓	Glass fiber
Polyester resin	✓	✗	✓	✓	✓	✓	✓	✓	Polyester resin
Epoxy resin	✓	✓	✓	✓	✓	✓	✓	✓	Epoxy resin
Conductive auxiliary material	✓	✗	✗	✗	✓	✗	✗	✗	Conductive auxiliary material
Volume & surface conductivity	✓	✗	(surface only)	✗	✓	✓	✗	✗	Volume & surface conductivity
External layer									External layer
Anodised aluminum pipe	✗	✓	✗	✗	✗	✗	✗	✗	Anodised aluminum pipe
Hydrophobic layer	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	Hydrophobic layer
ShoreD Hardness									ShoreD Hardness
Epoxy stem	n/a	n/a	n/a	80-90	80-90	80-90	80-90	80-90	Epoxy stem
Polyester stem	n/a	n/a	n/a	70-80	70-80	70-80	70-80	70-80	Polyester stem

rotoSLEEVE GlassFibre

rotoSLEEVE GlassFibre are ultra-light, composite Printing Cylinders.

Utilizing cutting-edge composite production methods, we craft our sleeves directly from the composite material. This innovative approach enables the incorporation of various materials including PET, Polyurethane, Polyester, or exceptionally resilient Epoxy resins.

Technical details

Base layer

- Made of glass material and epoxy resin (customizable chemical composition)
- High thermal resistance
- High dimensional stability
- The possibility of placing additional information
- High core flexibility thanks to customisable chemical composition

Compensating layer

-
- Vulkollan, extremely resistant and resilient
- Thermal resistance up to 110C
- Fast shape recovery, up to 60% energy return
- Protected with a layer of reinforced resin

Layers responsible for the behavior of the sleeves during application on the mandrel



Technical details

Layers responsible for weight reduction and surface life:

Volume layer

- Light 3D core material with honeycomb structure made out of PET or PU material. Material use dependent on the size of cylinder to gain the optimal weight
- **PET:** Closed volume; Less resin
- **PU:** Ultra light; Rigid foam

Improvement of product life:

External layer

- Glass material saturated with colored resin
- High hardness 80-90ShD and dimensional stability
- High mechanical resistance

Special lock

-
- Milled
- Fixed using adhesive
- The fasteners hide under protective rubber

Safety rubber

- Outer diameter perfectly matched
- High mechanical resistance

rotoSLEEVE Hydrophobic

The outer layer of the SIL CRO Sleeve has a physical and chemical treatment that creates a hydrophobic barrier.

SIL CRO Sleeve GF is dedicated to processes where the easy assembly and disassembly of double-sided foams are required. They are designed to help printing houses where the speed of changeover plays a significant role in the output of the manufacturing process.

The outer layer of the sleeve has a physical and chemical treatment that creates a hydrophobic barrier. The hydrophobic barrier is permanent over time, significantly reducing the problems caused by moisture. This means it retains its dimensional stability better than the market standard sleeves.

These sleeves are dedicated to water and UV inks. They also excel where high dimensional stability of the sleeve and high print quality is required.

Technical details

Base layer

- Glass fiber reinforced epoxy resin based on Bisphenol A with chemical composition
- Vulkollan - polyurethane fast shape recovery rubber - thermal resistance up to 200C



Technical details

Volume layer

- Light 3D core material with honeycomb structure made out of PET.
- Hydrophobic duroplast added to prevent humidity absorbtion

External layer

- Glass fiber reinforced polyester resin with UV and chemical treatment
- Specially activated surface prior to imparting hydrophobic properties
- Super hydrophobic properties

Improvement
of product life

Special lock

- Milled
- Fixed using adhesive
- The fasteners hide under protective rubber

Safety rubber

- Outer diameter perfectly matched
- High mechanical resistance

rotoSLEEVE Antistatic

CRO Plate Mounting Sleeves have been designed to be the best print cylinder for solvent inks.

Using the latest production techniques we produce our sleeves with a base composite layer with an ANTISTATIC carbon coating. This coating has excellent conductivity that has been independently credited by a laboratory. This combination means our CRO Plate Mounting Sleeves are recommended and designed for solvent inks.

Technical details

Base layer

- Made of glass material and epoxy resin
- High thermal resistance
- High dimensional stability
- The possibility of placing additional information

Compensating layer

- Vulkollan, extremely resistant and resilient
- Fast shape recovery, up to 60% energy return
- Protected with a layer of reinforced resin

Layers responsible for the behavior of the sleeves during application on the mandrel



Technical details

Layers responsible for weight reduction and surface life:

Volume layer

- Honeycomb, PET or XPS materials
- High thermal and chemical resistance
- Closed volume - less resin
- Reduction of weight

External layer

- Custom ANTISTATIC carbon coating
- Surface conductivity value $< 10^5$ Ohm
- Value of cross conductivity $< 10^6$ Ohm
- Safety certified by an independent accredited body
- Colour - Steel Blue

Improvement of product life

Special lock

- Milled Fixed using adhesive
- The fasteners hide under protective rubber

Safety rubber

- Outer diameter perfectly matched
- High mechanical resistance

rotoSLEEVE ECO

ECO Cro Sleeves GF are the sustainable, eco-friendly alternatives to the regular CRO Sleeve GF.

Our ECO composite sleeves are manufactured using the perfect blend of traditional and sustainable materials.

Technical details

Base layer

- Bio- based (28% of plant content) epoxy resin reinforced with Glass Fibre
- Vulkollan - polyurethane fast shape recovery rubber - thermal resistance up to 110C

Volume layer

- Light 3D core material with honeycomb structure made out of 100% recycled PET or ECO PU material made out of natural raw materials.

External layer

- Bio- based (28% of plant content) epoxy resin reinforced with Glass Fibre with 80-90 Shore D hardness
- Glass fibre reinforced free of styrene polyester resin with 70-80 ShoreD hardness



Technical details

Improvement
of product life

Special lock

- Milled
- Fixed using adhesive
- The fasteners hide under protective rubber

Safety rubber

- Outer diameter perfectly matched
- High mechanical resistance

rotoSLEEVE ECO ANTISTATIC

Sustainable and safe printing solution for flexographic industry designed to work with solvent-based paints.

Designed for use with solvent-based paints, the ECO CRO Sleeves GF ANTISTATIC Print Cylinders incorporate carbon materials for charge dissipation and reduced surface resistance. This ensures safe production by discharging static charges generated during printing.

Technical details

Base layer

- Bio- based (28% of plant content) epoxy resin reinforced with Glass Fibre
- Vulkollan - polyurethane fast shape recovery rubber - thermal resistance up to 110C

Volume layer

- Light 3D core material with honeycomb structure made out of 100% recycled PET or ECO PU material made out of natural raw materials.



Technical details

External layer

- Bio- based (28% of plant content) epoxy resin reinforced with Glass Fibre with 80-90 Shore D hardness
- Glass fibre reinforced free of styrene polyester resin with 70-80 ShoreD hardness
- Custom ANTISTATIC carbon coating
- Surface conductivity value $<10^5$ Ohm
- Value of cross conductivity $<10^6$ Ohm
- Safety certified by an independent accredited body
- Colour - Dark Green

Improvement
of product life

Special lock

- Milled
- Fixed using adhesive
- The fasteners hide under protective rubber

Safety rubber

- Outer diameter perfectly matched
- High mechanical resistance

rotoSLEEVE Aluminium

In our product range, modern sleeve print cylinders can also be found. These cylinders can be produced using aluminum as a working surface. The surface can be supplied as a standard or with an anodized finish. Easy and fast assembly, high working precision are very good arguments for using them. Less waste during the mounting of plates, better adhesion of the tape and reduced weight are also their advantages.

Technical details

- Easy and fast assembly on air mandrel thanks to high core flexibility thanks to customisable chemical composition
- High accuracy
- High durability inner core
- Scratch proof
- Light construction
- Horizontal and vertical guide lines for easy plate assembly
- ANTIFRICTION coating available
- Short manufacturing lead time



rotoSLEEVE Anilox Base

Maximum length - 1800 mm (71")
Diameter from 80 mm (3") to fi-200mm (8")
Lightweight construction
Easy assembly and disassembly
Working pressure 4.5-8 bar

The base for the anilox sleeve is finished with stainless steel rings for better corrosion protection.



rotoBRIDGE



rotoBRIDGE Elite

About

Rotometal introduces the new rotoBRIDGE Elite pneumatic CFK adapters, which belong to the high-end category.

By using the highest quality materials and a CFRP laminate, you can obtain high flexibility and steady printing processes. The Elite version stands out for its ability to reach the best print speed with minimal waste.

Assembly

Shafts
Pressure
Min. air volume

Pneumatic & Hybrid
Min. 6 bar / max. 10 bar
12 litres/ sec.

Dimensions: STORK

yes

Length

Minimum
Maximum

650mm
1950mm

Possible outer formats

Minimum outer (STORK)
Maximum outer (STORK)

390 (Ø 117,891 mm)
1400 (Ø 439,134 mm)

Possible inner formats

Minimum inner (STORK)
Maximum inner (STORK)

290 (Ø 86,060 mm)
500 (Ø 152,905 mm)

Diameter tolerances

≤ Format 700 (Ø 216,567 mm)
>Format 700 (Ø 216,567 mm)

+0,015 mm / +0,000
+0,018 mm / +0,000

Coating

Electrically conductive
Wear resistant

yes
Hardness 90 Shore D

Air Supply

Drilling
Optional plastic inserts
Optional ball valves

Benefits

- Innovative design
- Bridge system – Minimized points of contact between adapter and air cylinder
- Integrated seal for user-friendly assembly– No escaping air between air cylinder and adapter
- Integrated damping system to reduce vibrations to a minimum
- Highest register accuracy
- Perfect register accuracy
- Registration optionally replaceable, replacement integrated
- Low weight for simple handling due to the use of lightweight materials

rotoBRIDGE Premium

The rotoBRIDGE Premium pneumatic CFRP adapters offer a more cost effective option compared to our Elite adapters. By using the most lightweight materials, they cut down the weight considerably and allow you to set up much faster.

The rotoBRIDGE Premium delivers excellent print quality and suits well for agile work flows and quick print job transitions.

Pneumatic & Hybrid
Min. 6 bar / max. 10 bar
12 litres/ sec.

yes

650mm
1950mm

390 (Ø 117,891 mm)
1400 (Ø 439,134 mm)

290 (Ø 86,060 mm)
500 (Ø 152,905 mm)

+0,030 mm / +0,000
0,035 mm / +0,000

yes
Hardness 90 Shore D

Drilling

- Bridge system – Minimized points of contact between adapter and air cylinder
- Integrated seal for user-friendly assembly – No escaping air between air cylinder and adapter
- Integrated damping system to reduce vibrations to a minimum
- Perfect register accuracy

* maximum lenght depends on STORK

rotoBRIDGE Basic

Rotometal presents the rotoBRIDGE Basic, a reliable and budget-friendly option. Crafted from a base composite layer, this adapter features coating with antistatic characteristics.

Offering practicality and affordability, the rotoBRIDGE Basic ensures steady printing processes without compromising on quality.

Air Mandrel
Min. 6 bar / max. 10 bar
12 litres/ sec.

yes

300 mm
1600 mm*

260 (ø76,511)
960 (Ø 299,0774 mm)

210 (ø60,595)
-

+0,015 mm / +0,000
+0,018 mm / +0,000

yes
Hardness 80-90 Shore D

Drilling

- Several air supply alternatives available to meet press-specific requirements
- High thermal resistance
- High dimensional stability

rotoBRIDGE Basic Alu

Rotometal proudly presents the rotoBRIDGE Narrow Web, a purpose-built solution meticulously crafted for narrow web presses.

Designed to meet the unique demands of label and packaging printing, this adapter combines practicality, affordability, and performance.

Air Mandrel
Min. 6 bar / max. 10 bar
12 litres/ sec.

yes

300 mm
1600 mm*

ø95,609
960 (Ø 299,0774 mm)

210 (ø60,595)
-

+0,015 mm / +0,000
+0,018 mm / +0,000

yes
90 HB

Drilling
Optional ball valves

- Simple design for easy installation on the air mandrel
- Use of high-quality materials
- Durable inner core

rotoINK UV

Technical details:

- Designed for high -intensity colour and superior press performance
- Recommended for various paper and synthetic label substrates
- Offers both 4-color process and Pantone® standard shades
- Available in standard and high-resistance versions, catering to diverse needs

Available colours:

CMYK Colours

- Process Yellow
- Process Cyan
- Process Magenta
- Process Black

PANTONE Colours

- Orange 021
- Green
- Violet
- Yellow
- Yellow 012
- Red 032
- Warm Red
- Rubine Red
- Rhodamine Red

- Purple
- Reflex Blue
- Blue 072
- Process Blue
- Black
- Flxcure Silver 877
- Gold 871

BASIC Colours

- Transparent White
- Extra White
- Dense Black

Security Colours

- UV-VISI Blue

Compatible with:

- Cast coated papers
- Machine coated papers
- Uncoated paper
- Top Coated thermal paper
- Polyethylene (PE)
- Top Coated PE
- Polypropylene (PP)
- Top Coated PP
- Biaxially Oriented Polypropylene (BOPP)



rotoVARNISH UV

Advantages

- Improved formula
- More slip
- Faster curing

Available Variants:

- ☐ Gloss ☐ Regular Gloss ☐ Overprintable

Suitable for

- Anilox systems (roller coater, flexo letterpress and roll to roll offset machines)
- Sheet fed offset machines that are equipped with UV curing

Characteristics

- Solvent free
- High reactivity
- Fast curing
- High gloss
- Low odour
- Low viscosity
- Suitable for applications that require bending or folding of the print

Compatible with:

- Papers
- Cards & cardboards
- Offset inks
- Packaging
- Roll to roll





Rotometal DBN Sp. z o.o.
Jana III Sobieskiego 14
66-200 Świebodzin, Poland

Tel +48 68 459 46 05
Mobile +48 728 471 035
Fax +48 68 459 46 06
biuro@rotometal.pl

www.rotometal.pl



Scan me!