Roll Cover
Products & Services
Menges Roller has over 40 years of experience in the roller business. We actually started as a rubber covering house, so we understand rubber, urethane and silicone better than anyone in the industry. We’re equipped with an array of stripping, extruding, finishing and grooving machinery - and engineers with years of experience - so recover projects are accomplished quickly and professionally, while maintaining very high levels of quality.

Rollcovers - and So Much More

- **Recovers:**
  We completely strip away the old rollcover, remove all debris, then expose and clean the steel core. Bonding agents are then applied, specially formulated to match the rollcover chemistry. Next, using our award-winning seamless rollcovering process, the roll is covered in the elastometric compound of choice. Many compounds are stocked in-house, ready for immediate use. Recover projects are often paired with services such as groove and crown profiling, balancing or roller repair services. We do it all under one roof, ensuring outstanding results on each and every project.

- **Grooves & Serrations:**
  A wide variety of groove and serration options are available to enhance the material handling characteristics of your roll.

- **Crowning:**
  Menges Engineers will calculate the correct crown profile for your application; we use computer-assisted machines to form parabolic and reverse-parabolic crowns on all types of rolls.

- **Balancing:**
  Our two-plane dynamic & static balancing services help rolls run smooth and wobble-free at high linespeeds.

- **Kiss Grinding:**
  This re-grinding process ‘trues-up’ rolls between recovering procedures, avoiding the need for a complete recover.

- **Repair Services:**
  While your roll is here for recovering, take advantage of our comprehensive repair services. We repair and replace journals, refinish bearing races, repair cores and much more.

Any Elastomer Compound on the Market:
We stock many compounds in-house, to expedite recover projects. In addition to covering with any current formula, we can blend custom compounds.

Available Rollcover Compounds (partial list)

- Natural Rubber
- Hypalon
- Silicone
- EPDM Silicone Blends
- EPDM
- Nitrile (NBR/BUNA)
- Neoprene
- Viton (Fluoroelastomer)
- Thermal Plastic Urethane
- Hypalon Blends for Corona Uses
- FDA Approved Coverings
- Anti-Static Blends

Menges Roller Makes Recovers Easy & Quick:
- In-House Trucking Services for Roll Pickup & Delivery
- Priority Scheduling for All Recovers (minimizes downtime)
- We Stock Many Popular Elastomers In-House (ready for use)
- Menges Meets Your Deadline - 3-Day Service Available
Groove & Crown Profiles To Solve Your Material Handling Challenges

At Menges, recovering your roll is just the start. We offer an host of groove, serration and crown profile options designed to enhance the performance and material handling characteristics of your roller. If you’re not sure where to begin or want to try something new, just speak to your Menges Sales Engineer - they understand rollcover dynamics like nobody else.

Menges employs computer-controlled crown forming software tied to surface modification machines, all to create very exact crown profiles for our customers.

The above illustrates a parabolic crown profile. Parabolic & reverse-parabolic crowns are used to enhance a roll’s material handling characteristics, causing webs to run flat and slightly stretched. Crowns are also widely used on nip rolls. Measured in hundredths or thousandths of an inch, crowns are not easily visible. It can be difficult to calculate the appropriate crown dimensions, but it’s not a problem for the Menges Engineers. We understand the principles of deflection, load distribution, nip pressure and the related cosine curve equations.
Large Rolls? Our Capacity Reaches 30 Feet

Menges Roller specializes in “XXL” sizes. We recover rolls up to 30 feet long.

Web widths are constantly expanding, so we’ve invested in the upsized equipment and accessories needed to recover & repair today’s large process rolls.

And we do it without sacrificing the Menges reputation for pinpoint accuracy. No roller company matches our scope of service: jumbo capacity, access to any elastomeric compound, and a comprehensive offering of repair and secondary services such as grooving, dynamic balancing, and crown calculating & forming.

Speak to your Menges Sales Engineer for further details or to schedule your roll recover project.

Seamless Rollcovers - No Creases, Just Uniform Perfection

Menges Roller has perfected the seamless rollover application process.

Our award-winning ‘strip building’ process eliminates the seams that typically cause problems in precision extruding and coating.

Menges-covered rolls are truly seamless, with no ‘build lines.’ Quality is double-ensured by the fact we do all vulcanizing and finishing at one facility.

Dynamic Balancing - Simulating Your Linespeed Ensures Performance

Out-of-balance rolls cause many material handling problems, from fluttering film to wavy sheet metal, resulting in poor laminating and wasted stock.

The higher your linespeed, the more important the need for perfectly balanced rolls.

Our computer-assisted two-plane dynamic balancing equipment generates very accurate balance, weight and centrifugal force data. We put the roll in full motion at customer-specified linespeeds, then use the data to correct all imbalances.

The result is a roll that runs smooth and wobble-free, even at high speeds. Balancing is often overlooked, but poorly balanced rolls cause real problems. It’s very convenient to have your roll balanced while it’s at Menges for recovering.

Repair & Maintenance Services - Your One-Stop Source

Menges Roller can handle all your roller repair tasks:

- Journal Repair or Replacement
- Core / Shell Repairs
- Bearing Race Resurfacing
- Cylindrical Grinding
- Diameter Modification of Cores & Journals
- For Heat Transfer Rolls, We Also Do Chrome Re-Plating

The Menges Roller Team is always available to provide advice and trouble-shoot your challenges. With over 40 years of experience working with top plastic, paper and steel processors, Menges Roller provides more than just rollovers - we’re your total roll solution headquarters. Call or click to get started.
This chart details our most popular compounds. Menges Roller can cover your roll with virtually any compound on the market or custom-blend formulas to suit your unique specifications. Speak to a Menges Sales Engineer: we can walk you through the advantages and properties of each material.

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As a leader in the development, testing and final application of all types of elastomeric compounds, Menges knows rubber, silicone and urethane like no other roller company. Our Tiger Max compound won several prominent awards, and our renowned Tough Coat and Super Tough Coat compounds lead the way in nitrile-based applications. We’re also one of very few companies capable of blending silicone and rubber compounds to create hybrid rollcovers that take advantage of each compound’s advantages.

The below descriptions correlate with the attached chart, giving detail on our most popular rollover compounds. As always, the Menges Roller Team is here to provide expert advice and technical solutions relating to rollcovers and so much more.

**E-Zone**
This EPDM-based product offers excellent ozone resistance. It stands-up to chemicals very well and has above average abrasion and dent resistance. This balanced mix of physical & chemical properties make our E-Zone perfect for an array of applications.

**Tough Coat**
Menges Tough Coat, a nitrile-based cover, is a real workhorse. Exceptional physical properties and good chemical resistance make it a cost-effective cover for many idler, nip and pull rolls.

**Super Tough Coat**
Super Tough Coat is one of our most popular rollcovers. This compound is similar to nitrile rubber, but the polymer backbone is chemically modified with carboxylic acid. The result is a very durable rollover, with great abrasion & chemical resistance, far superior to standard nitrile.

**Nitrile PVC**
We’ve blended two compounds, keeping the best traits from each: combining strong physical strength with great chemical resistance. As a rollover, it’s used in many printing applications. It offers specific resistance to aliphatic hydrocarbons (oil-based inks), plus improved ozone and abrasion resistance over standard nitrile.

**Hydrogenated Nitrile**
Known also as HNBR, Menges offers this material as an alternative to polyurethane. *It surpasses standard NBR in these areas:*
- Mechanical and dynamic properties
- Oil and fuel resistance
- Heat resistance: Physical properties are maintained over a broad temperature range, as opposed to urethane, which degrades as temperatures increase.
- Abrasion, tear & chunk-out resistance
- Retention of roll geometry: Initial higher costs are repaid multiple times over the long term via lower maintenance costs, less downtime & improved performance.

Menges HNBR lasts 3-5 times longer than typical rollover compounds

**Viton**
Viton (fluoroelastomer) has excellent heat, cut and abrasion resistance, as well as good resistance to fuel oil & many popular chemicals. Viton is often used when no other compound will work, so the cost is always paid back with better output, less downtime and faster linespeeds.

**Converter Preen**
One of our most popular elastomers, this hypalon-based cover has outstanding abrasion & cut resistance, coupled with excellent heat, ozone and chemical resistance. It’s a hard-working rollover you can rely on for use in corona treating, laminating, coating and in cast film nip roll applications.

**Corona Treater**
Our corona treater cover is hypalon-based, but augmented to withstand the rigors of its environment. This compound has great dielectric strength, enabling it to insulate against high voltage. Many materials have been tested against corona discharge, but Menges Corona Treater is proven to stand up best.

**Natural Rubber**
The original rollover, it is still widely used in some applications. It has strong load bearing qualities & tensile strength, it’s abrasion resistant, and resists key solvents (esters & ketones); plus it’s available in extremely hard durometers (required by paper & textile industries).

**EconoSil**
This hybrid compound is a unique blend of silicone and EPDM, marrying the best properties of each. This unique formula is best for rolls required to perform well when hot, to deliver high release, while having structural strength & chemical resistance. For some processes, 100% silicone or 100% EPDM may not work: this is where Menges EconoSil is the perfect solution.

**High-Speed Web Offset**
Menges Roller has developed a proprietary elastomeric compound that is perfectly suited for high-speed web offset presses. See your Sales Engineer for more details.

**Silicone - A Menges Specialty**
Silicone is its own category, known for its release properties (materials don’t stick) and for being extremely heat resistant. Menges Roller has specialized in silicone since the 1960s. We offer standard industrial grades plus custom blends to bring out certain characteristics:
- Ultra-high release blends
- Thermally conductive blends
- FDA approved formulas
- Anti-static compounds

All have outstanding resiliency and most are capable of handling temps up to 500°F. Speak to a Menges Sales Engineer to choose one that’s right for your application.

**Tiger Max**
Tiger Max is an award-winning TPU-based elastomer developed by Menges Roller. It’s one of the toughest rollcovers we offer, with superior pressure, abrasion and cut resistance. This high-tech cover also has exceptional ozone & chemical resistance. Ideal for high-pressure uses, Tiger Max is employed in steel coil converting, plastic processing, and the manufacturing of paper, roofing & nonwovens materials.

**Aqua-Preen**
With a neoprene base, this compound has good tensile strength, tough cut resistance and low compression set. Although somewhat replaced by more advanced formulas neoprene-based rollcovers are still preferred for many select applications.

**Millable Urethane - Ether & Ester**
Urethanes offer extremely good wear resistance, with great solvent resistance. We have wide experience working with urethane-based compounds. Menges can formulate a urethane-based compound (Ether or Ester) to meet your specific needs and solve your process challenges.

**Chemical Category Definitions:**
- Ketones: Methyl Ethyl Keytone (MEK), Methyl Isobutyl Keytone (MIBK), Acetone
- Chlorinated Hydrocarbons: Methylen Chloride, 1.1.1 Trichloroethylen, Perchloroethylene
- Aliphatic Hydrocarbons: Kerosene, Gasoline, Hexane, Naphtha, Mineral Spirits
- Aromatic Hydrocarbons: Most offset printing inks, Many lubricants & greases
- Esters: Toluol or Toluene, Xyl, Xylene
- Acids-Mineral: Ethylacetate, Dioclyl Phthalate, Tricresyl Phosphate
- Acids-Organic: Nitric, Sulfuric, Hydrochloric, or Phosphoric Acids
- Caustics: Acetic Acid, Boric Acid
- Alcohols: Sodium Hydroxide, Calcium Hydroxide
- Glycols: Methanol, Ethanol, Isopropyl Alcohol
- Ether & Ester: Ethylene Glycol, Glycerine

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