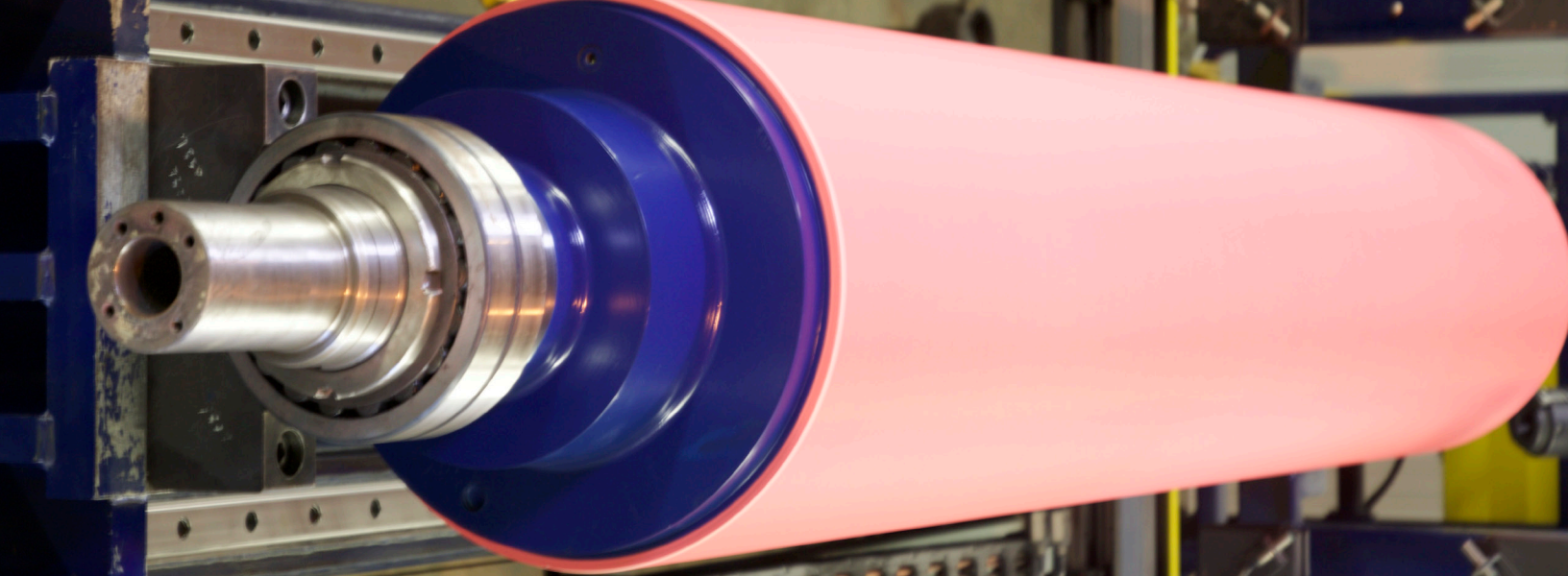


RUBBER COVERED ROLLS



**VALLEY ROLLER**  
**RUBBER COVERED ROLLS**

**MAXCESS**



### More Than a Rubber Covered Roll

Valley Roller offers you a complete service that helps ensure you get the right roll, the right performance, all in record time. We will help specify the rubber compounds best suited to meet the demands of your applications and guide you through the various choices of surface finishes, grooves or patterns. We will also build, cover, cure, grind and balance each roll for optimum performance.

#### In-House Services

- Engineering and design
- Roll and journal repair
- Chemical analysis
- Machining
- Dynamic balancing
- Rebuilding and regrinding
- Core manufacturing (a partnership with Webex)
- Grooving and crowning
- Bearing removal, inspection and replacement
- Field engineering and inspection
- 24-hour emergency service

### The Valley Roller Advantage

We have been designing, manufacturing, repairing and creating custom rubber compounds for a wide range of applications since 1984. Through our integrated approach to customer service and manufacturing, we provide the highest level of service, accuracy and quality control for every order. Whether you need rolls repaired or replaced, ordering one or 100, we will strive to meet or exceed your expectations every time.



### Worldwide Service and Support

As part of the Maxcess team, Valley Roller personnel can offer the most comprehensive array of accessories and complementary equipment in the industry, thanks to our partner brands of Webex (Precision Rolls), Fife (Web Guiding & Inspection), Tidland (Shafts, Chucks and Slitting Systems) and MAGPOWR (Tension Control). Maxcess provides a global reach, with operations in North America, Europe and Asia Pacific.





### **Skilled Technicians**

Our skilled technicians use state-of-the-art extruders to strip-build rolls to your desired cover thickness.

In addition, an extensive inventory of custom elastomer compounds are readily available to meet a wide variety of web process applications.

#### **Primary Industries Served**

- Pulp and Paper
- Tissue and Towel converting
- Plastics/film/laminating
- General Converting
- Machining
- Printing
- Construction
- Metals
- Textiles
- Nonwovens

Roll repair and recovering begins by carefully removing or stripping off the old rubber covering



### **Roll Balancing**

Valley Roller's skilled technicians can dynamically balance 2-plane and 3-plane with whip correction, providing a properly balanced roll. An imbalanced roll causes a premature failure of machine parts due to excessive wear, causing roll coverings to heat up and create vibration, which can have a negative effect on the quality of the end product.

Valley Roller operates five large programmable-controlled autoclaves around-the-clock to cure all new and rebuilt rolls. Computer-controlled temperature and pressure ramping creates exacting physical properties in each rubber compound. In addition, each temperature history is recorded as part of the manufacturing process.



### Setting New Standards in Industry Tolerances

Roll finishing is performed using one of 14 different roll grinders. Here, we can do more than just the standard shop tolerances. Our computerized grinders are capable of producing any industrial crown specification, with precision grinding tolerances that far exceed industry standards. Whatever your application, we can help specify the best possible rubber compound and the right tolerances to ensure better roll performance.

For applications requiring a near perfect grind profile, Valley Roller offers a laser inspection system. This system offers non-contact measurement for highly accurate, .001" or better, diameter, TIR and grind profile measurements.



### Fully-Equipped Facilities

- Two manufacturing sites
- Computer-controlled autoclaves
- Computerized grooving
- Computerized crowning
- Large elastomer inventory with custom compounds
- Drive-through bays for safe, controlled loading and unloading of your rolls
- Overhead cranes to handle staging and positioning of rolls up to 20 tons

### Complete Computerized Grooving and Crowning Capabilities

Valley Roller provides a wide assortment of surface grooving needed for advanced web handling, including:

- Spreading
- De-wrinkling
- Non-slip
- Tracking
- Air elimination, circumferential
- Herringbone
- Lateral Fluted
- Vent-a-nip
- Spiral/worm





## Sponge Roll

Coating applications require a unique set of demands of a rubber covered roller. Rubber cover dimensional stability over time, cut and tear resistance when handling various substrates, and consistent carry of the coating and laydown are key to a reliable steady state coating operation. Solvent based coatings and the harsh chemistry of industrial cleaners combine to produce the more challenging set of forces to which a rubber covered roller could ever be exposed. Valley Roller Company has introduced two new Sponge Roll cover compounds that meet these challenges to provide better roll life and improved roll to roll cover consistency.

## Silicone

Valley Roller's Silicone STS TC Series of Silicone coverings are ideally suited for the most demanding high temperature roll applications. Valley Roller has developed a new family of thermally-conductive coverings for plastics forming and laminating applications that can withstand all of the relevant application parameters, including temperature, release, resiliency and thermal conductivity. Traditional thermally conductive silicone coverings generally exhibit poor physical properties when compared to other coverings in the same hardness range. These new coverings have been designed to exhibit higher overall elongation and therefore are less brittle. Ultimately this improves the durability of the covering.

## Teflon Sleeve

Valley Roller's Teflon Sleeves provide high release properties that are typically used in plastics and coating applications where hot plastic substrates and tacky coatings will stick to most rubber coverings. Typical sleeve thickness are 0.20", 0.30" and 0.60."

## Polyurethane

PolyCast™ Extreme coverings are specifically designed to improve substrate release properties, enhance roll life and improve machine reliability values in a broad range of specialty applications. Polyurethane roll coverings are used in a variety of roll applications. A Polyurethane roll cover exhibits extreme toughness and abrasion resistance over a broad range of hardness. Formulated with novel additives, PolyCast Extreme goes a step further by also providing exceptional release properties to substrates that carry aqueous and solvent based adhesives and other coatings. PolyCast™ polyurethane coverings are specifically tailored to meet some of the toughest chemical resistance requirements in the coatings market.

## Val-Rite™

Valley Roller's Val-Rite™ series offers improved roll covering performance that has helped our customers achieve substantial productivity improvements. The Val-Rite™ family of coverings were specifically designed to improve mechanical properties, enhance resistance to hot aqueous media, enhance heat aging and maintain competitive value in the general industrial roll market. Today Val-Rite™ roll coverings are being used in a variety of industries and applications. These coverings are available in a wide range of hardness from 35-95 Shore A. Val-Rite™ Series roll covers offer excellent resilience and hardness stability in service temperatures up to 275° F.



### Val-Coat®

Valley Roller's Val-Coat® Series of roll coverings have been found to be superior to alternative roll coverings. This family of high performance covers has been designed to overcome the deficiencies of traditional roll covers. Val-Coat® covers have been proven to meet the wide range of performance parameters found within a variety of roll applications. Based on innovative rubber chemistry, these unique roll covers offer superior mechanical properties. In addition, Val-Coat® Series roll covers provide superior chemical resistance, excellent dynamic properties, and ultimately, significantly improved roll cover life.

### Dura-Coat®

Valley Roller's Dura-Coat® series offers improved roll covering performance and has helped our customers achieve substantial productivity improvements. This family of coverings has been used extensively across many applications for the balance of physical properties and chemical resistance. Dura-Coat® coverings are used in a variety of industries and applications where heat, ozone, and abrasion resistance are performance requirements. Dura-Coat® covers exhibit good heat stability up to 300° F and are available in a range of hardness from 35 to 95 Shore A.

### Polar-Rite™

Valley Roller's Polar-Rite™ Series of roll coverings offer a superior balance of chemical resistance and heat resistance properties to alternative roll coverings. Polar-Rite™ coverings have a saturated polymer backbone, which accounts for excellent heat resistance, up to 350°F continuous exposure. Polar-Rite™ is based upon a “non-polar” type polymer, and thus exhibits great resistance to “polar” solvents such as ketones and esters. Polar-Rite™ coverings offer a balance of physical properties that make this family of coverings an excellent choice for many coatings and general industrial roll applications. Polar-Rite™ coverings are available in wide range of hardness from 30 - 95 Shore A.

### Premium Rock™

The PREMIUM ROCK™ Series was developed by Valley Roller Company specifically to meet the demands of paper industry rolls requiring 0-1 PG J hardness. Based on innovative formulas, these roll coverings achieve more than just the required hardness. They provide superior performance in chemical resistance, hardness stability, hysteresis, heat stability, abrasion resistance, thermal expansion and friction requirements. The stability of the Premium Rock™ Series roll coverings make them ideal for nip applications under a broad spectrum of operating conditions. Exposure to paper mill chemicals, nip loads, and high speeds are no threat to the high-performance characteristics of these advanced, bone-hard coverings. ISO certified suppliers to ensure optimum cover integrity and performance.



5- Excellent

4- Above Average

3- Average

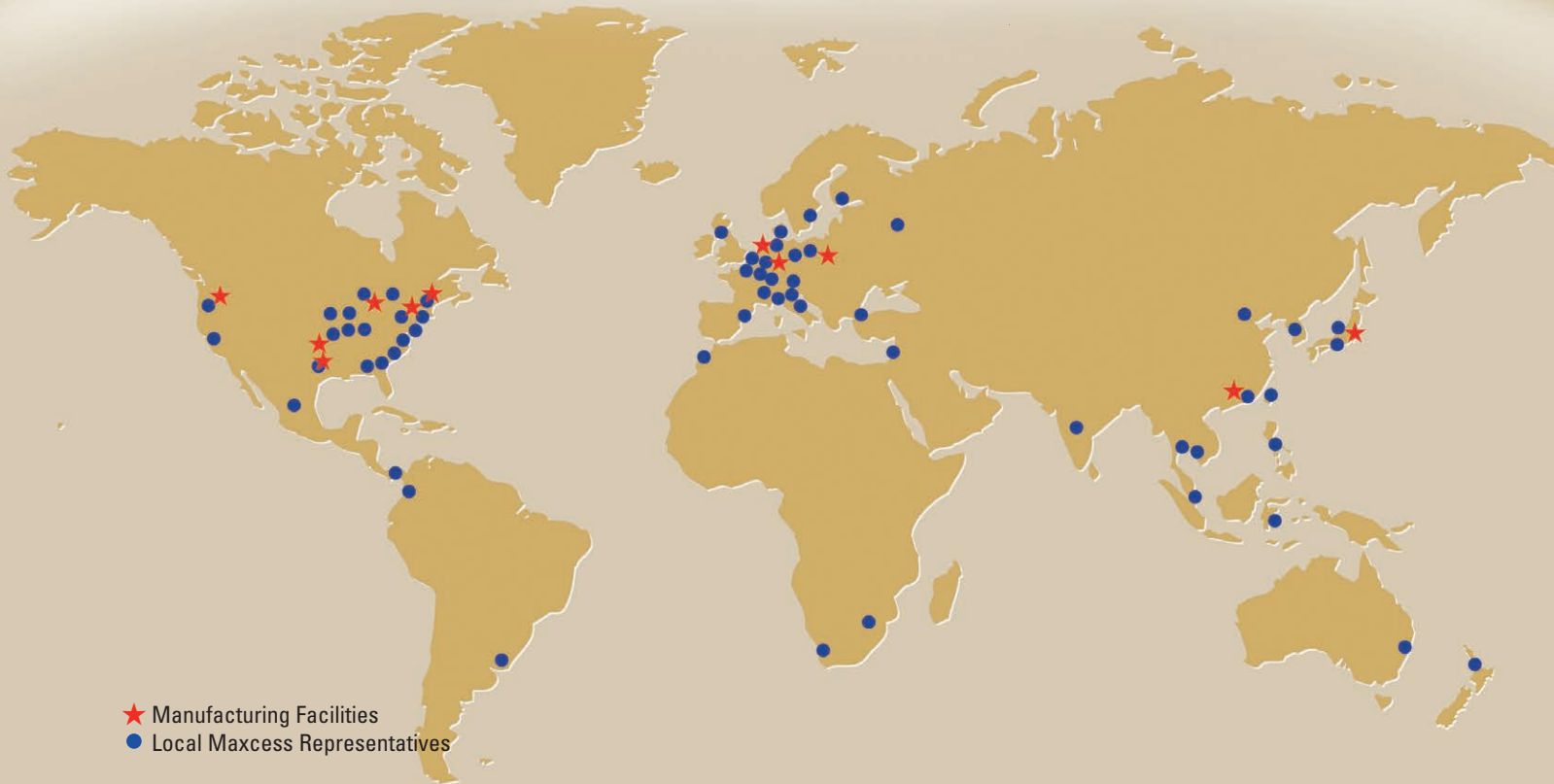
2- Fair

1- Poor

	NBR or Buna N	NBR / PVC Blend	Neoprene	EPDM	Carboxylated Nitrile	Hypalon	Epichlorohydrin	Natural Rubber	Butyl	Polybutadiene	Ester Urethane	Ether Urethane	SBR	Silicone	Fluoroelastomer	HNBR
Hardness Shore A	25-90	25-90	25-90	30-95	50-97	30-95	40-95	30-90	40-70	40-80	40-95	40-95	40-95	30-95	50-90	50-99
P&J Hardness	30-250	30-250	30-300	30-270	10-160	5-270	NA	3-30	NA	1-230	3-230	3-230	5-180	NA	30-160	5-160
Tensile Strength	3	3	4	2	5	3	3	4	2	4	5	5	3	2	3	5
Modulus	3	3	4	3	5	4	3	3	2	3	5	5	4	3	3	5
Elongation	3	3	3	3	3	3	3	5	4	5	4	4	3	4	3	4
Tear Strength	3	3	3	2	5	3	3	5	2	5	5	5	3	2	3	5
Cut Resistance	3	3	3	2	5	3	3	4	2	4	5	5	3	2	3	5
Compression Set Resistance	4	3	3	3	2	4	3	3	2	3	3	3	3	5	3	5
Permanent Set Resistance	5	4	4	3	3	3	3	4	2	4	4	4	3	4	3	5
Resilience	4	4	4	3	2	2	3	5	2	5	4	4	3	5	3	5
Hysteresis	5	2	3	2	1	3	3	4	2	4	5	5	3	5	2	5
Abrasion Resistance	3	3	3	3	5	5	3	5	2	5	5	5	3	1	3	5
Ozone Resistance	3	3	4	5	1	5	4	1	1	1	4	4	1	5	5	3
Hydrolytic Stability	5	5	5	5	5	5	5	5	5	5	1	2	5	5	5	5
Dielectric Strength	1	2	2	1	1	5	1	2	2	1	2	2	1	5	3	2
Release	3	3	3	1	1	4	1	2	1	3	2	2	2	5	5	3
Maximum Service Temp.	250	250	250	350	275	300	300	212	225	225	212	212	250	500	650	350
Acids	2	3	4	5	2	5	4	3	4	3	1	1	3	4	5	3
Caustics	3	3	4	5	3	5	4	3	4	3	1	1	3	4	5	4
Aliphatic Hydrocarbons	5	5	3	1	5	3	5	1	1	1	5	2	1	2	5	5
Aromatic Hydrocarbons	3	4	2	2	3	2	2	1	1	1	5	1	1	3	5	3
Chlorinated Hydrocarbons	1	1	1	1	1	1	2	1	1	1	2	1	1	3	5	1
Esters	1	1	3	5	1	3	2	5	5	4	2	1	4	3	2	1
Alcohols	5	5	4	5	4	4	4	5	5	5	4	3	5	4	2	5
Water	4	4	3	5	3	4	4	5	5	5	1-4	2-4	5	4	4	5
Glycols	5	5	4	5	3	4	4	5	5	5	2	2	5	4	4	5
Ketones	2	1	3	5	2	3	2	5	5	5	2	1	4	3	1	2

Use this chart to find the Valley Roller compounds that best suit your application needs.

For assistance, please call your local support team (listed on the back cover) or visit [www.valleyroller.com](http://www.valleyroller.com).



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