



# WEBEX PRECISION ROLLS

Heat Transfer Rolls, Vacuum Rolls, Bowed Rolls, Idler Rolls

AXCESS



# **Industry Leaders Trust Webex**

We do more than manufacture the premier Precision Rolls of the industry. We provide robust solutions to maintaining the critical properties of your web.

Webex Engineers have decades of experience in designing and producing Precision Rolls. We have the expertise to understand exactly how our rolls will perform in an application.

Many of the world's leading companies trust Webex to provide the Precision Rolls for their most challenging web handling needs. Webex has maintained a solid reputation by understanding the unique needs of our customers, engineering the right solution, and manufacturing the highest quality Precision Rolls in the industry. We invest the time in every roll we manufacture to insure every detail is correct.





### **Problem Solvers**

We welcome the opportunity to solve the most difficult web handling challenges. Our design and manufacturing teams have extensive experience with Precision Rolls in a wide range of industries with unique requirements. Whether handling asphalt roofing material or optical grade precision film, every roll Webex produces has been engineered and built to the exact specifications required to solve an application challenge and exceed expectations. The value our Webex Engineers bring to each project is unique in the industry.



#### **Heat Transfer Rolls**

Webex has compiled a wide range of design options to manufacture the most efficient Heat Transfer Roll. Our Engineers evaluate roll size, internal geometry and fluid dynamics to develop the most efficient roll for each application.

# How to maintain the perfect temperature across the entire width of your web

Webex Engineers rely upon industry experience and computerized analysis software to predict exactly what the thermal performance of each heat transfer roll will be. Each roll is engineered for an optimum balance between heat transfer, minimal pressure drop, precise fluid velocity and controlled temperature rise across the roll face, accurate to



within ±1°F [±0.5°C].
Roll journals are
manufactured to precise
tolerance, the rolls are
precision balanced,
and the construction
materials are selected
specifically to handle
load requirements.



# Quality and consistency are backed by rigid certification

- ASME Certification demonstrates our ability to meet and uphold the most stringent manufacturing standards
- ISO Certification demonstrates long-standing dedication to maintain documented processes adopted by the International Manufacturing community
- A global focus on Lean Manufacturing processes ensure that your Precision Roll is manufactured in an efficient environment, where experienced machinists and certified welders can focus on producing the highest quality rolls



# **Process-Critical, Heavily Loaded Rolls**

We handle extreme specifications in a wide array of industries; from paper to food and pharmaceutical. Webex rolls are designed for the tightest tolerances, largest

diameters, strongest designs and fastest line speeds. Our teams work with a diverse array of materials, coatings, and machined patterns to address specific process requirements.



- Rolls built in accordance with ASME Boiler and Pressure Vessel Code (Stamps U, UM and R)
- · Embossing Rolls
- Flaker Rolls
- Pleating Rolls
- Dancer Rolls
- Coating Rolls
- Nip Rolls
- Calendering Rolls
- Laminating Rolls

In addition to setting the standard for idler rolls, Webex has unique capabilities in the industry to produce large custom rolls unequaled by competition. Through the specialized design and manufacturing capabilities gained through our brands PFE, Magnat Fairview and Fox Machining, we are able to produce rolls in excess of 1,575 mm (60 inches) in diameter and 13,208 mm (520 inches) in length.







### **Vacuum Rolls**

Webex Vacuum Rolls are an ideal solution for applications in which nip rolls or contact with both sides of a web is not possible or desired. They are also an excellent tension isolation and control point ahead of flotation ovens where webs are coated on both sides. By drawing one web surface into contact with the roll, Vacuum Rolls increase friction forces and help prevent web slippage.

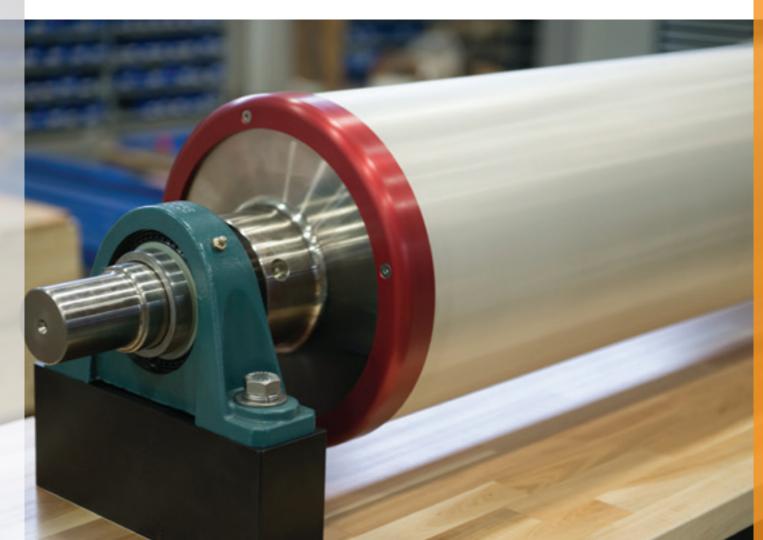
### **Seamless Screens**

Webex Vacuum Rolls incorporate a smooth, ultra-fine, seamless, nickel screen that provides consistent grip across the entire width of the web, without damaging even the most delicate coated materials. The roll surface carries and supports the web while the vacuum grid gently holds the web evenly in all directions.

Our Vacuum Rolls have proven themselves in some of the harshest environments possible while continuing to maintain accurate and delicate web control.

- · Ultra-thin coated films
- Pressure-sensitive papers
- Decorative products
- Adhesive tapes and optical film for the aerospace, biomedical and pharmaceutical industries





# Every Webex Vacuum Roll is designed for your unique application

- Vacuum zone angles configured to match the web wrap
- · A wide variety of custom options
- Adjustable vacuum zones for varying web widths
- Flame spray coatings for release and traction
- · Clean room and cantilevered designs

Protective screens provide consistent grip across the entire width of the web, and extra protection for sensitive materials. We offer a wide variety of screens and coverings to prevent marking of delicate webs.

### This includes:

- Ultra-fine, seamless, nickel screen for the most delicate coated materials
- · Wool felt covers
- Fine stainless steel wire mesh screens
- Standard Tungsten Carbide plasma for an all-purpose finish with good traction and release properties
- Rubber (polymer compound) coatings available



The non-slip, single side grip of Webex Vacuum Rolls make them ideal for:

- Controlling/transporting webs with coating or adhesives on one side
- Controlling webs made of sensitive materials, such as optical film
- · Web positioning and control at high speeds
- Handling and stabilizing webs in low-tension operations
- Webs requiring a pull roll without a nip
- Separating layers of a web
- Web tension isolation
- Replacing nip rolls and S-wraps for improved safety and reduced scrap





### **Webex Bowed Rolls**

Our rugged Bowed Rolls provide effective control of slit web separation and wrinkle removal. Bowed Rolls are available in both permanent bow and adjustable bow models. Webex's proven mounting solutions ensure ease of installation, as well as extended versatility in web control.

These precision bowed rolls are ideal for separation of slit webs, the elimination of web wrinkles, slack edges or loose centers caused by inconsistent tension across the width of the web. Exceptional performance of Webex Bowed Roll is evidenced by the even distribution of lateral web tension and vibration-free operation at all specified speeds.

- Precision-engineered mounts and bearing housings that simplify bowed roll installation and service
- Specialized roll coverings are available to meet any web or environmental challenge; from abrasion and heat resistant to high-release or dielectric properties
- Optional adjustable mounts let you rotate the roll apex while running at full line speeds to achieve optimal web engagement and control



### **Bowed Roll Models Available**

### Adjusta-Bow

Highly versatile rolls with adjustable bow to meet varying web conditions:

- Adjustable bow to accommodate different product weights, tensions and materials
- Standard diameters from 89 to 165 mm (3.5 to 6.5 inches)

### Perma-Bow

Rugged fixed Bowed Rolls engineered for consistent, stable performance:

- Amount of bow is engineered for each application
- Standard diameters from 38 to 190.5 mm (1.5 to 7.5 inches)



# **Rubber Covered Spreader Rolls**

Grooved rubber-covered spreader rolls remain one of the most cost-effective and frequently used solutions to eliminate web wrinkling. These idlers are covered with a rubber elastomer and are precision machined with angled, outward spiraling grooves across the roll surface. There are different elastomers available for use, each with different physical properties such as solvent resistance, heat resistance, and hardness. In addition, various groove patterns are available to meet your specific application needs.



- Separating
- Spreading
- Dewrinkling
- Non-slip
- Tracking
- Air Elimination

# Industry leaders trust Webex for Idler Rolls that perform in the most challenging environments

Throughout 40 years of producing Idler Rolls, Webex has been the premier supplier to the web handling industry. Our rolls are configured to your requirements by a knowledgeable staff who understand your application and what roll properties will provide the very best solution. From proper bearing selection, construction materials and final coatings, Webex Idler Rolls are built with the precision and robustness to make your application a success.



Webex products evolve with the needs of their customers. Count on Webex Idler Rolls to meet your most demanding speed, rolling resistance, tension and width requirements. Chances are, we've been there before.

- · High line speeds
- Heavy loads
- Tight tolerances
- Challenging environments; cleanroom, corrosive chemicals, intense heat

### **Ease of Selection**

Webex engineers have the expertise to assist in the selection of the perfect idler roll solution. When the application requires high speeds, heavy loads, tight tolerances, or all three, we have the solution that you require. The selection and ordering process is further streamlined through the availability of over 400 standard configurations. Our designers can develop the ideal solution from nearly limitless combinations. We are able to choose from multiple options for coating, plating, finish, grove patterns, shaft style, and environmental capabilities such as high temperature or clean room requirements. The selection of a Webex idler roll can be made with the confidence that it will perform reliably for a very long time.



# Lightweight, high-performance Idler Rolls



# **Webex Carbon Composite Idler Rolls**

Unmatched for their combined strength and low weight, advanced carbon fiber composite tubing produced in-house gives these rolls nearly twice the load bearing capacity of standard aluminum rollers, with only a third the weight. Every roll is dynamically balanced for high speeds and exceptionally smooth performance.

- High strength and low weight
- Lowest inertia ratings
- Superior tension control
- Run wider webs at higher critical speeds
- Higher load capacity than comparable aluminum rollers

# **UltraLight™ Aluminum Idlers**

Through precision engineering and machining Ultralight Idler Rolls offer the lowest break-away torques. This low-inertia idler is ideal for low-wrap, low tension applications. Perfect when web slippage is unacceptable. UltraLight™ Idler Rolls can weigh 60 percent less than standard aluminum idlers and 25 percent less than Webex LightWeight Idler Rolls.

### **LightWeight Aluminum Idlers**

When you need an Idler Roll lighter than standard models but still strong enough for your application, take a closer look at Webex LightWeight Aluminum Idlers. These rolls are ideal for low tension applications and

feature half the wall thickness and roll weight of our standard aluminum Idler Rolls.



#### **Machined Surfaces**

- Chevron Groove
- Spiral V Groove
- Knurled Steel
- Matte Finish
- Reverse Crown

# **Coatings and Coverings**

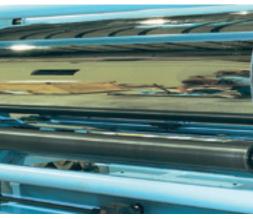
- Hard-coated Aluminum
- Electro-less Nickel Plating
- Rubber Covering
- Mirror Finish
- Chrome Plating











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