



FOX | MAGNAT FAIRVIEW | PFE

Accurate Temperature Management in a Precision Engineered Roll

For more than 40 years, Webex has been the industry's first choice in maintaining consistent and cost-effective temperature management with our Precision Engineered Heat Transfer Rolls.

Webex Engineers rely upon industry experience and a proprietary analysis process to predict exactly what the heat transfer results will be prior to manufacturing, to within $\pm 1^\circ \text{F}$ (0.5°C) across the face of the roll. We also specialize in rolls with ultra-tight tolerances, special plating and finishing.



To meet your exact application parameters, every Webex Heat Transfer Roll is designed for optimal balance between heat transfer, minimal pressure drop inside the roll, correct fluid velocity and minimum temperature rise across the roll face. Whatever roll size or specification you need, Webex is the proven source for heat transfer roll performance.

GENERAL SPECIFICATIONS

Certifications

ISO 9001
ASME Certified Pressure Vessels (Stamp U and R)

Size Range Capabilities

Diameters from 5 to 157 cm [2 to 62 inches]
Lengths up to 13 m [520 inches]

Typical Tolerances

Concentricity and straightness held within 0.013 mm (0.0005 inch)
Precision grinding to less than 0.00254 mm [0.0001 inch] TIR
Mirror super-finishing to less than 0.012 $\mu\text{m Ra}$ [0.5 $\mu\text{-inch Ra}$]

Design Options

Spiral Design: Gain Pitch or Straight Pitch
Fluid Flow: Mono-Flow or Duo-Flow
Fluid: Oil or Water

KEY FEATURES

- Engineered for a wide range of cooling or heating applications
- Largest roll manufacturing capacity to produce a wide variety of rolls
- Machined beyond industry norms to meet stringent requirements
- Unique gain-pitch design provides exacting control of temperature differentials and overall roll performance
- Each roll receives detailed stress and deflection analysis to assure safety

WEBEX HEAT TRANSFER ROLL

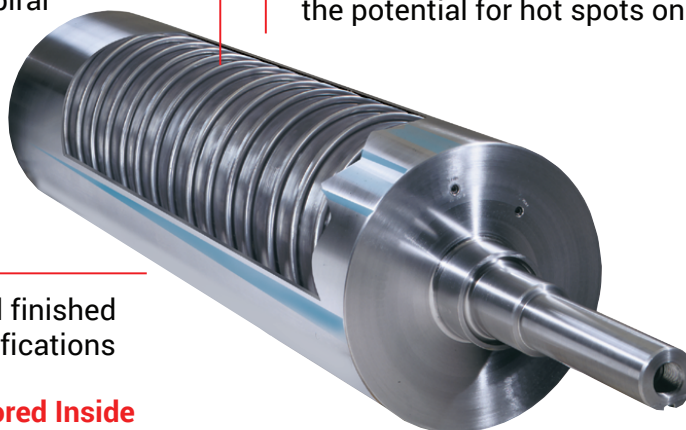
NOMENCLATURE

Inner Shell

Machined smooth for clear fluid flow and precise spiral placement

Fluid Cross Flow

A precisely calculated space between the spiral and the outer shell eliminates the potential for hot spots on the web



Outer Shell

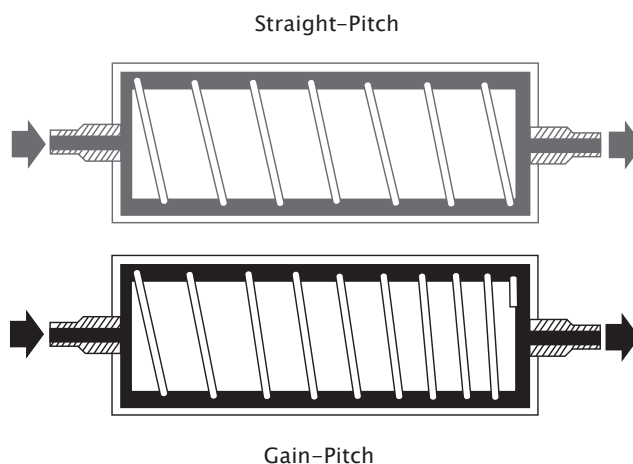
Machined and finished to exact specifications

Outer Shell Bored Inside

Improves heat transfer by ensuring consistent temperature through the outer shell

How the Webex Gain-Pitch Roll increases operating efficiencies over a Straight-Pitch Roll

- For any identical web temperature and speed, the Gain-Pitch Roll requires a lower fluid flow rate (gal/min) than a Straight-Pitch Roll. You'll use less water while maintaining the same heat transfer requirements
- Heat transfer fluid increases in velocity (ft/sec) as it travels through the Gain-Pitch Roll, while fluid velocity remains constant in a Straight-Pitch Roll.
- As fluid velocity increases within the Gain-Pitch Roll, heat transfer improves, reducing the web temperature difference across the roll surface, from inlet to output side.



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