



Hard Chrome Roll is known by many names such as Heating Roll, Metal Roll, Finishing Roll and Hard Chrome Plated Roll. EHL Hard Chrome Roll is a vital part of Calender machines. The fabric finish mostly depends upon the metal roll or hard roll. These rolls provide the best support to elastic rolls or soft rolls. The nip formed with the combination of elastic roll is responsible for the finish on fabric or on paper or any other media which are being passed through the calendering process. ECL Hard chrome roll stands tall in all quality & operational parameters.

Hard Chroming Plating Is An Art

At EHL, we recognize the importance of cleaning prior to Hard Chrome Coating in our plating process. To achieve the required levels of cleanliness and Surface Dimension Accuracy the roll has to undergo through the Pre-Plating Grinding. If required, the roll will be pre-blasted in the blasting room. To ensure proper bonding and a superior, wear resistant surface, Chromium must be skillfully impregnated in the metal pores. Plating is an art that benefits from our extensive, inhouse expertise in metallurgy, metal working & plating.

Compression Chart of Hard Chrome Roll Normal Hard Chrome Roll v/s EHL Hard Chrome Plated Roll										
Description	Normal Hard Chrome Roll	EHL Hard Chrome Plated Roll	Advantage							
Construction	From Pipe	From 1-piece solid s	naft Accuracy & long life							
Design	Local design as per pipe availability	German Design	Standard design technically proven							
Operation	Deflect in High Pressure	Stable in High Pressure	Trouble free running							
Pressure	Can't withstand at High	Withstands at High	Sturdy design							
WallThickness	Less Wall Thickness	Solid Shaft with Boring	Maintenance Free							
Balancing	No Balancing	Static Balanced Roll	Smooth operation							
Accuracy	No accurate dimensions	High Accuracy	Fabric gets even finish							
Chrome Plating	Less Micron Plating	More Micron Plating	More working life							
Surface Finish	Dull Finish	Mirror Super Finish	Excellent Fabric finish							



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Complete Calender Bowl Technology

Super Finish

Better Economy

High Endurance

Advanced Technology

Excellent Performance





In the year 1959, ECK Haubold & Laxmi installed high Intheyear 1961, paper as roller cover material was pressure hydraulic presses under the technical agreement imported from Germany and bowls were made for the & guidance with Voith Sulzer Germany.

In the year 1995, EHL opened its second plant in Ambernath near Mumbai. In Year 2011, EHL opened its Wool Paper Bowl Application third technological advanced plant in Karad near Textile calendering · Schreiner calendering · Textile PuneCalendering always prevails for finishing cotton, embossing Coated/uncoated paper calendering/ cotton blended fabrics. Calendering produces various embossing · Aluminium embossing · Fax paper effects with following combinations.

Chasing effects

Linen appearance rounding of yarn. All bowls run at the Jute Textile Calendering same speed. Cloth goes through the calenders, several times, overlapped.

Swizzing Effect

Smooth appearance. Fabric runs through all nips when White Spacial N/VT Paper Bowl Application speed of all bowls are the same.

Friction Effect

High gloss and higher yarn closnig. Fabric runs overheated polished top chilled iron bowl running at a speed higher than the cloth speed produced with spur wheels. Speeds · Hardness of elastic bowl are 1.5 to as high as 3.5 times cloth speed. The cloth gets · Material to be calendered

Schreiner/Embossing Effect

engraved fine lines/design on bowl surface.



following applications.

embossing

Flax Paper Bowl Application

Linen/Cotton Paper Bowl Application

High density calendering

Magnetic tapes. Temperature in textlie may be higher.

The operating parameters may vary due to:

- Nip pressure
- · Relation of roll diameter to speed

Wool Paper Surface Finishing:

Finishing of filled bowl is an important step in the bowl Design Transfer. By applying high (10 tons & above) & manufacturing. Bowls are turned initially with carbide temperature (150°C & above) with 2-bowl calender having tiptool and later with diamond tool. The silky and glossy finish is produced by specially designed finish machine with USA make Polish abrasive papers and Tool.

Effect of Surface hardness on the attributes of elastic roll												
Cotton Bowl Application	Hardness Shored	Density	Nip width	Nip pressure	Resilience	Loading Capacity	Mark Removal	Hardness	Heat Development	Reduction in Bulk	Ease of Calendering	Heat Resistance
Super Calender	78° - 80°	MORE	LESS	MORE	LESS	MORE	LESS	MORE	LESS	MORE 🕨	LESS	MORE
Friction Textile Calender	76° - 78°	2										
Universal Textile Calender	72° - 76°	LESS	MORE	LESS	MORE	LESS	MORE	LESS	MORE	LESS	MORE	LESS

Hybrid Fibre Roll.



ECK Haubold & Laxmi is an innovative Engineering company which has been manufacturing a variety of Rolls for since 1959. To extend the tradition of innovation and to be in line with modern global business practices, we have dedicated an independent in house facility, for new Research and developments for high performance material. These innovations and R&D at EHL opened up a range of new possibilities through an engineered design process based on scientific design and technology concepts to Hybrid Fibre roll.

Product development is key success for EHL since its year of incorporation 1959.

Our continuous research works help us to introduce different rollers in textile, paper, steel, Home Textile Industry. ECK Haubold & Laxmi introduce new type of special type of hybrid roller and its advantages are as follows



Advantage

- · Excellent Unique Fabric Finish
- · Higher temperature bearing capacity
- Better Pressure bearing capacity
- Improved production
- More resilience
- Extended Life



Manufacturing of Hybrid Roll

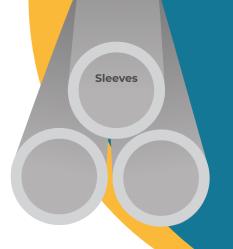
- 1) Core Shaft: Bigger Diameter EN8/EN9 Steel Grade Shafts.
- 2) Filling Material: 5 Types Fibre sourced from across the world
- 3) Raw Material: Pre Processing of Raw Material is Key Stage.
- 4) Pressing Technology: Pressed On the Advance Automatic Press.
- 5) Hardness: Optimum Hardness for Better Life & Better Finish.
- 6) Proper Surface Finish: Excellent Gloss surface on the Roll.
- 7) Cambering Profile: EHL Offer True Parabolic Cambering.
- 8) Quality Test: Each roll has to pass through EHL's Strict Quality Test.
- 9) EHL Brand: Peace of Mind & Complete Trust on EHL Products.



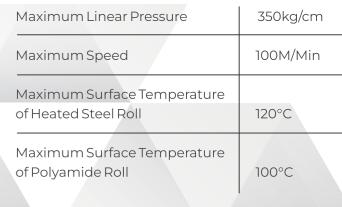
Polyamide Sleeve Roll

Construction

EHL Polyamide Sleeve Roll comprise of spun-cast sleeve (approximately 50mm thick) manufactured from the highest quality polymers, fitted to a precision engineering carbon steel solid shaft. Polyamide sleeves are cast on industry leading equipment ensuring the optmium density and elasticity throughout. Carefully mixing and temperature control of the polymers combined with excellent pressure control during casting, guarantees that every polyamide sleeve is perfectly cast for optimum performance. (Note: Inferior cast polyamide type sleeves in the market are susceptible to hot spots caused by uneven density, bad polymerisation and short polymers).



Maximum Running Conditions*



*For Actual Operating Parameter please refer EHL Product manual

Polyamide rolls can be produced upto 6m face length & 1m diameter, with a parallel or crowned profile



Polyamide

Sleeve Roll

Silent Features

- Much longer service life
- No 'running-in' required
- · Different material widths can be run without edge marking problems
- Higher hardness combined with better elasticity
- · Resistant to most commonly used processing chemicals
- · Higher resistance to the embossing effects of selvidges, sewing seams, creases & knots etc.
- Low maintenance



Performance Benefits

- Better smoothing/calendering effect
- Excellent glazing effect when used in conjunction with a highly polished steel roll
- · Polyamide Roll can be remachined several times
- Running stability enables higher and more homogeneous lustre at higher speeds
- · Polyamide produces excellent lustre/feel/matte effects when used in combination with cotton rolls