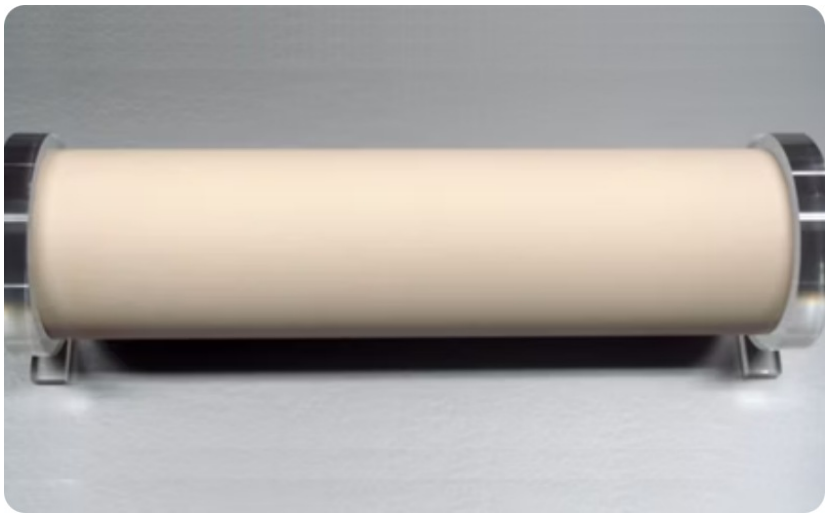
Process Rubber Rolls · NP-1/DLC Treatment

Rubber rolls for film transport, nipping and winding, with NP-1 treatment or DLC coating to help reduce transferred rubber constituents and wrinkles associated with excessive grip.



Features

- Review options to reduce rubber bleed and transfer contamination
- Lower-friction surfaces to help reduce transport wrinkles
- DLC treatment configurations that accommodate substrate deformation

Key specifications

Surface treatment	NP-1 / DLC

Manufacturing and supply scope

Rubber type and hardness, diameter, face length, journals and treatment area are agreed from drawings and operating conditions. EPDM treatment examples do not establish suitability for every rubber.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.

DLC-coated Rolls · Gravure & Transport

Functional DLC coatings for metal and composite rolls, selected for friction, wear and coating quality in gravure coating and film transport. GHT reviews film thickness and wettability for your process.

Features

• Room-temperature deposition with application-specific thickness
• Review reduced blade friction, chatter and wear debris
• Wettability adjustment and antistatic configurations available for review

Key specifications

DLC film thickness range	1.5-10 µm · application dependent

Manufacturing and supply scope

Metal and composite rolls and directly DLC-coated gravure rolls can be reviewed. Diameter, face length, journals, engraving, corrosion resistance and solvent compatibility require individual confirmation; not all size and thickness combinations are guaranteed.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.

Lightweight CFRP Guide Rolls

CFRP guide rolls for lightweight, low-inertia transport. Clad structures with metal or resin sleeves and selected surface treatments support review of long-roll transport and reduced process loads.

Features

- CFRP body combined with metal or resin sleeves
- Aluminum, stainless or steel journals reviewed by drawing
- Configurations include Ni sleeve + DLC or Ni sleeve + hard chrome + DLC

Key specifications

Maximum machining envelope notation	φ300 × overall length 4,200L

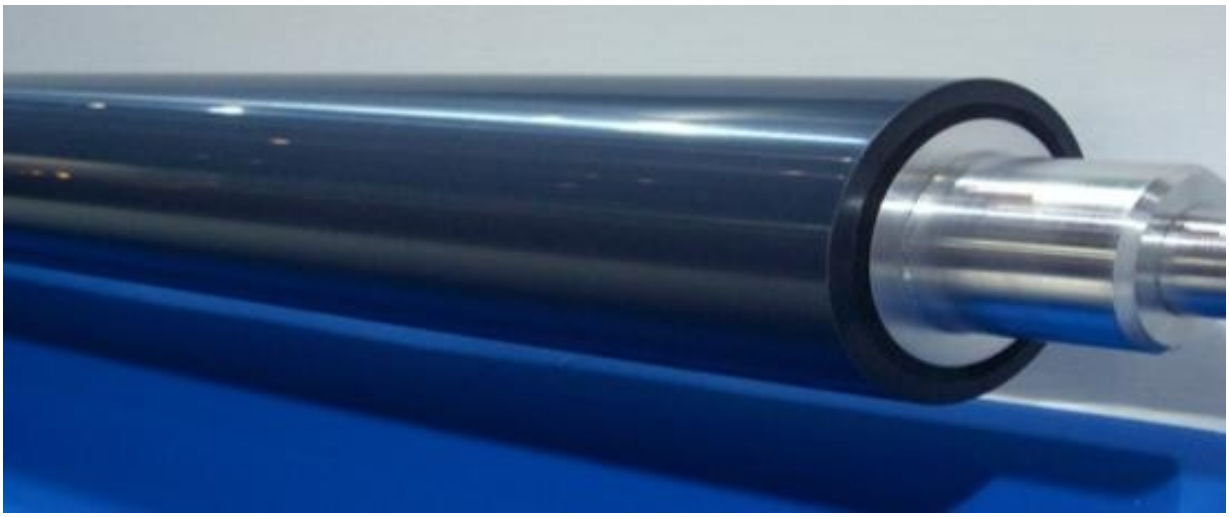
Manufacturing and supply scope

Confirm units, face versus overall length and the feasible machining envelope on the final drawing. Select dimensions and construction for load, speed, deflection, thermal expansion and surface treatment.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.

PP Composite Transport Rolls

Composite transport rolls using PP pipe. GHT reviews liquid and temperature compatibility for immersion and chemical-contact processes, with replaceable PP sections and regrinding options.



Features

- Ground PP surface with regrinding subject to review
- Composite conversion of existing rolls and PP-only replacement by agreement
- CFRP combinations can be reviewed for weight reduction

Key specifications

Manufacturing / operating envelope	Max diameter φ264 mm / max overall length 5,500 mm / service temperature up to approx. 70°C

Manufacturing and supply scope

The 5,500 mm configuration may include PP-welded joints. Confirm whether maximum diameter, length and temperature can be combined for the load, liquid and shaft design. Mirror-finish requirements are agreed separately.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.

Water-absorbing Sponge Rolls

Open-cell absorbent sponge rolls for removing water from substrates and films after cleaning. Select flexibility, absorption and ground outside-diameter requirements for your process.

Features

- Special polyurethane and olefin-resin families
- Ground outside diameter for roundness and cylindricity requirements
- Review resistance to hardening when dry and clean-treated supply

Key specifications

Cell pore diameter	10-30 μm · open-cell structure

Manufacturing and supply scope

Agree diameter, face length and shaft design after reviewing contact pressure and cleaning-liquid compatibility. Temperature, life and absorption capacity are process dependent and are not stated as universal guaranteed values.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.

Pastin Mirror Rolls · Textured Transport Rolls

Textured transport rolls that regulate the air layer and grip between the roll and film. GHT reviews film damage, blocking and roll slip with your operating conditions.

Features

- Microtexture selected for film transport
- Optional DLC configurations for wear resistance and static control
- Surface texture selected for film and coated-layer characteristics

Key specifications

Surface / options	Microtexture / DLC / antistatic configuration by agreement

Manufacturing and supply scope

Diameter, face length, journals, texture and DLC specification are agreed from drawings and film conditions. Provide film material and thickness, tension, speed, contact side and acceptable defects.

Performance and feasible configurations depend on operating conditions. Send your drawing, film/substrate, tension, speed, temperature, contacting liquid and quantity so GHT can propose a suitable configuration.