

Precise Mirror Polish Surface on Roll and Shaft

Precise Mirror Polishing on Cylindrical Surface

TDC's technics are capable of maintaining accuracy of size and shape at the same time as achieving nano level of surface roughness. TDC realizes nano level surface roughness on many kind of materials stainless steel, nickel, glass, titanium, pure aluminum.



Why Super Precise Mirror Polish Surface Roll ?

Do you have problems with damage and noise on the surface of a printing roll before fine and precise patterning is applied?

Recent research and development of high-performance films have contributed to the development of finer patterns.

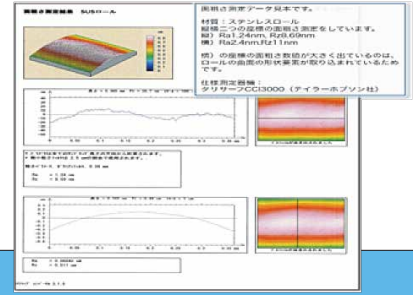
Finer patterns brought about a new problem of increased NGs, subtle damage or noise which used to be ignored are now frequently being unaccepted.

Although cylindrical grinding process also achieves mirror surface, it does not satisfy the requirement for a perfect surface without any damage and noise.

TDC developed a brand new machine in house which realizes a perfect surface without any damages, noises or frosted marks.

Specification

- A brand new machine for precise mirror surface developed in house
- Ra1 nm Rz10nm (in case of SUS304)
- Outer diameter ϕ 500mm max. Length L=3000 m max.
Measurement data of surface roughness (SUS304)



Feature of Super Precise Roll's Process

Materials	Stainless Steel, Nickel, Aluminum, Titanium, Quartz Glass, Cemented Carbide, Surface Coatings(Nickel Plating, Hard Chrome Plating)	Outer Diameter	Max : 500mm
Length	Max : 3000mm	Surface Roughness	Ra1nm, Rz10nm
Accuracy Guaranteed	Scratch free, Mirror finish, Size Tolerance, Cylindricity, Straightness, Coaxiality	Application	Mold for Films, Mold for Nano-in-print

Materials

Stainless Steel / Titanium / Aluminum / Glasses
Surface with coating such as Ni, Cr, HCr are also acceptable.



- Stainless steel roll. Mirror polished product.
- Available from one piece to mass production.
- Maximum length is 3 m.

Processing Achievement

Outer surface roughness	Ra1.5nm, Rz10nm (SUS304, glass etc.)
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- From one piece to large scale production.
- From material procurement to all processing processes.
- For more information on delivery time, price and other specifications, please contact us as follows.

Contact

