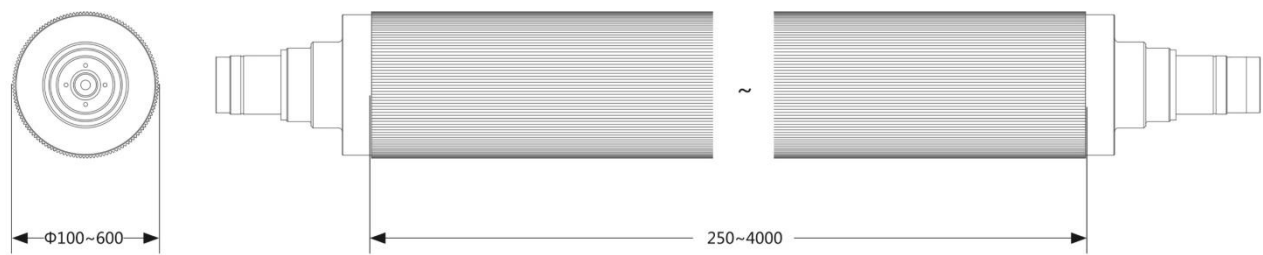


 **K.L.
ENGINEERING
WORKS**

SPECIFIATION OF CORRUGATED ROLLS

Corrugated rollers are offered in varies length and diameters with CNC centered, drilled, bored& sized at **K.L ENGINEERING WORKS.**



FLUTE PROFILES FOR CORRUGATED ROLLS

Flute	Number	Height
K	26 ± 2	5.5~6.5
A	34 ± 3	4.5~5.0
C	41 ± 3	3.5~4.0
CB	45 ± 3	3.0~3.5
B	50 ± 4	2.5~3.0
BE	66 ± 3	1.9~2.1
E	93 ± 6	1.1~2.0
F	136 ± 20	0.6~0.9
G	185 ± 12	0.5~0.65

K.L can adjust the flute design base on customer's requirements and make new customized flute design for corrugated rolls. We better our precise flute design through a professional software to comprehensively consider factors of pitch, paper board hardness and thus to help customer to achieve production with low GSM paper usage.

ACCURACY AND PRECISION ON CORRUGATED ROLLS



- Micron-level precision to ensure optimal flute depth and pitch.
- Flute profile testing machine imported German make equipment.
- 750+ flute profiles with varies pitch and depths timely checked.
- CNC-Controlled flute and grinding processes delivers accurate results.
- Balanced rolls prevent vibrations, ensuring stability and durability.
- Tailored roll design based on your machine and production speed.

COMPARISON BETWEEN HARD CHROME CORRUGATED ROLLS VS TUNGSTEN CARBIDE CORRUGATED ROLLS

Compare item	Hard Chrome Corrugated Roll	Tungsten Carbide Corrugated Roll
Flute Profile	Poor wear resistance causes tooth profile height increase.	High hardness, good wear resistance and low tooth height remains optimum.
Thickness of finished board	Uneven high and low with the wear during use.	Ensure the production of good quality board at same thickness of board
Rolls durable and life	Service life of chrome rolls is generally between 6-8 million meters.	Service life of tungsten coated rolls reach up to 25-26 million metes, reducing the number of maintenance, manpower, material & financial resources.
Take-up factor	High and unstable while use.	Low and stable with good strength while in use.
Service of corrugated rolls	Due to wear resistance, each repair reduces the diameter and hardness results in less repairs onwards.	Tungsten carbide coating is removed by special method and the rolls substance are still same and can be used many times after repair.

EQUIPMENTS AND TECHNIQUES

VERTICAL SHAFT CNC FREQUENCY QUENCHING MACHINE

Rollers can be hardened, after a heat treatment process, corrugated rolls surface becomes more wear-resistant and durable. With proper heat treatments are now have more strong than usual and have more hardness as a forged material. The hardening increases hardness by 13-15% to the material. Well treated rolls are now able to serve more production then ever up to 100 million meters and counting.

HIGH PRECISION CNC FLUTE PROFILE GRINDING MACHINE

Corrugated roller is now ready for profile grinding after the heat treatment process. The rollers are available in varies flute profiles with countless variations of heights and pitches available at K.L ENGINEERING WORKS.

Standard Profiles are K, C, A, B, E, F, G, N, O available at K.L ENGINEERING WORKS.

We are the fastest corrugated roller manufacturer in India as we have in-house 2 flute grindings equipped with best-in-class high precision Siemens Control Panel.

THE HIGH CARBIDE TUNGSTEN COATING FOR CORRUGATED ROLLERS

Tungsten coating which provides super hardness to roller with low porosity and super long life as compared to hard chrome plated rollers.

Using tungsten carbide coating benefits in less gum consumption by 3-4% and paper wastage by 8-10%. With more efficiency and smoothness.

Tungsten coating is applicable on all flute profiles even the mini flutes too which includes E, F, G, N, O.



K.L ENGINEERING WORKS

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