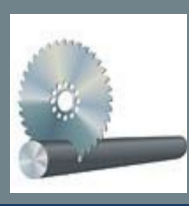
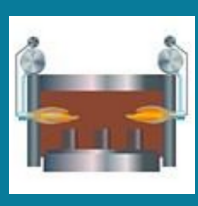
TRAIN WHEELS MANUFACTURING

www.train-wheels.com

BLOOM-CROPPING

Using a cutting machine, the cooled round steel is cut into small pieces to obtain wheel moulds. Each wheel mould weighs approximately 450 kg





HEATING

The cut wheel moulds are heated in a rotary oven to 1300 °C.

PREFORMING

Preforming refers to the use of a preforming machine to initially forge the billet after it has been heated to a certain temperature, to make an intermediate billet





FORMING

Forming by die forging, resulting in a more homogeneous and compact structure of the train wheels.

ROLLING

Shaping of wheels to standard diameters using roll mills



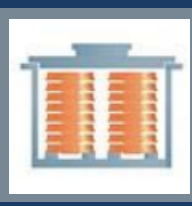


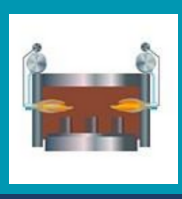
PUNCHING

Pressing out the round hole for mounting the axle in the centre of the rail wheel

COOLING

Allow the wheels to cool down naturally and reach a certain hardness





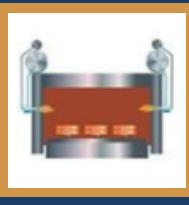
HEATING

Heating before quenching increases the plasticity of the metal and reduces the deformation resistance

QUENCHING

Spray the surface of the wheel with cold water to harden the steel





TEMPERING

The wheels as a whole were tempered at 520 ± 10°C. Holding for 90 minutes to recrystallise and austenitise the rolled tissue

MACHINING

Removal of surface oxidation and precise machining of dimensions such as the inner and outer diameters of wheels.





BALACING

Relates to the stability of the wheel at high speeds, the smaller the value, the higher the stability

MARKING

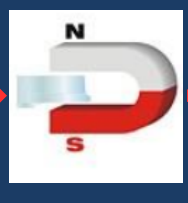
Manufacturing year and month, manufacturing unit code, wheel steel grade code, wheel model, inspector's mark, etc.



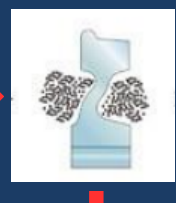


HARDNESS TESTING

Checking the load carrying capacity and wear resistance of the wheels to ensure smoothness and safety during travelling











If you have any questions related to railway wheels manufacturing, please visit www.train-wheels.com