

Thermomechanical Treatment

Classification

- Depending on the temperature of deformation of austenite

For steels

HTMT - High temperature thermomechanical treatment

LTMT - Low temperature " "

HTMT - Includes deformation of austenitic at a temp above the recrystallization temp
austenite is immediately quenched after mechanical working.

LTMT - austenite is supercooled to a temp below the recrystallization temp, and then this supercooled austenite is deformed at this temp.

This is followed by rapid cooling immediately after the working.

In HTMT strength levels obtained are higher than the conventional hardening & tempering treatment, but are less than those obtained by LTMT.

HTMT → Hot working process

LTMT → strength level are much higher than HTMT.