

Process and production line for continuous manufacturing of ultrathin hot rolled steel strip from thin slab obtained through a process of continuous casting comprising a secondary cooling system, a pre-transformation by roughing (5) of the thin slab immediately after the continuous casting, an induction heating (8) to fix temperatures of the intermediate strip chosen between 1000 and 1400°C, a final rolling (18) up to a thickness of the hot finished strip of 0.4mm at a minimum through not more than six passes while keeping a controlled temperature of the hot rolled strip from the last stand, of the finishing rolling mill higher than 750°C. It is also provided a cooling (14), in the time, of the strip (13) between the last stand of the finishing rolling mill and the coiling in view of the specific T.T.T diagram (time-temperature-transformation) for steel quality and strip thickness. A control system of the process is also provided with a master system and six further peripheric sub-systems.