

China cold forming machine technology and history

In China, since the construction of the cold forming unit in the late 1950s, it has undergone a tortuous process of development and adjustment. At the end of the 1970s, there were only six. In the 1980s, China's cold-formed steel developed rapidly. By 1982, the output was only 16,000 tons. By 1989, more than 20 roll former manufacturers in the country had a production capacity of more than 300,000 tons, and the design capacity reached more than 600,000 tons. Among them, 14 key factories of metallurgical systems and 45 sets of units, the specifications of cold-formed steels are also increasing. It has reached more than 800 species. Under the favorable form of reform and opening up, the national economic construction puts forward new requirements for steel varieties and quality. The advantages of cold-formed steel are gradually recognized and accepted by people, and the production of cold-formed steel has achieved great development. Up to now, there have been more than 100 sets of cold bending units, with an annual production capacity of 1.5 million tons and a total of more than 1,000 varieties.

(1) The rough forming section adopts the combination of the common roller and the replacement roller. When the product specifications are replaced, the rolls of some of the frames do not

have to be replaced, and the reserve amount of the partial rollers can be saved.

(2) Combination roller for flat roller, the rough forming section is six-stand, the vertical roller group roller is inclined, the roller volume is small, the weight of the roller of the traditional roller molding machine is reduced by more than $\frac{1}{3}$, and the equipment structure is more compact.

(3) The roll profile is simple, easy to roll former manufacturer for fabricating and repair, and the roll recycling rate is high.

(4) Stable molding, the rolling mill has strong applicability to thin-walled tubes and rear-wall tubes, and has a wide range of product specifications. The first set forming machine unit designed by the institute was officially put into operation in August 1992 at China Steel Tube Plant. However, in terms of output, quality, variety, consumption and application areas, as well as equipment level and process level, compared with foreign developed countries, the gap is very large, and it is not commensurate with the status of an annual output of nearly 100 million tons of steel producing countries. It can be expected that cold-formed steel will have a greater development in China.