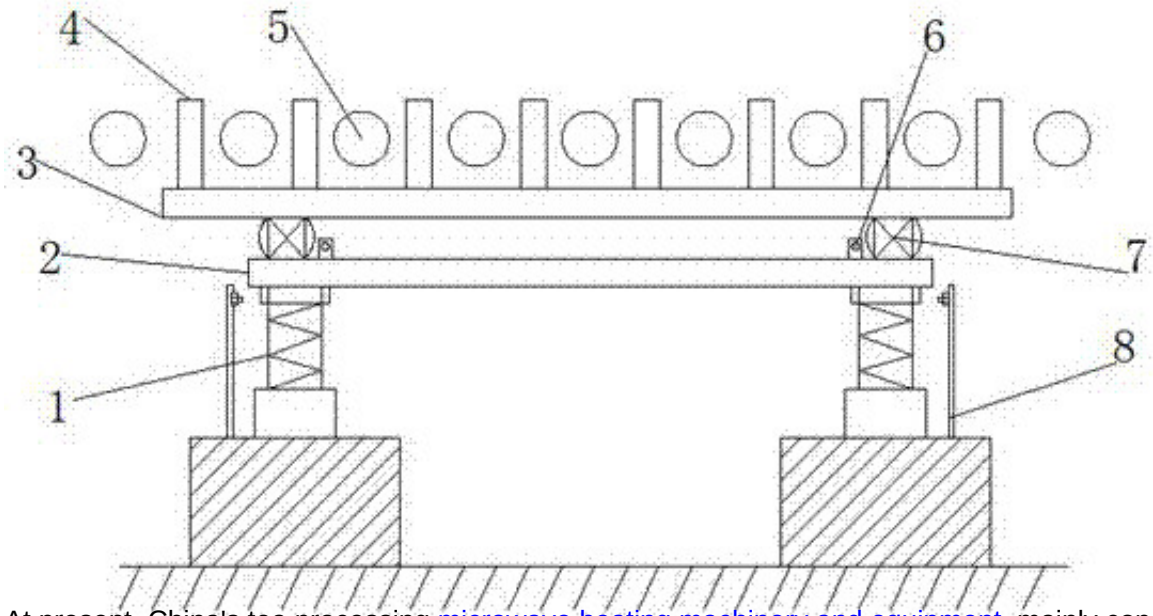
Research and application of continuous processing line



At present, China's tea processing microwave heating machinery and equipment, mainly concentrated in the processing of broken black tea and steamed green tea, there are also a small number of green tea processing line application reports. Strip black tea, also known as Gongfu black tea, has dark color, bright red soup, rich aroma, strong and fresh taste, sweet and stimulating, even and tender bottom of leaves, and the market price is about 30 times that of export black broken tea.

Compared with the rapid development of tea production, the poor hygienic conditions and low degree of automation are common in China's tea continuous processing production lines. There is a big gap between the automation and hygienic standards of tea processing and food processing in China. Most tea processing enterprises are far from meeting the requirements of cleaner production.

Tea is a traditional beverage in China for thousands of years. It is rich in teas, flavonoids and other substances. Often drinking tea has the functions of refreshing the brain, eliminating food and phlegm, detoxifying cough, diuresis and eyesight, and increasing nutrition.

Due to the time-consuming processing and complex technology, single machine production is the main method at present, and there is no report on the application of continuous processing production line.

The processing of green tea and broken black tea is relatively simple, so there are mature production lines in China at present. Because of the complex processing technology, black strip tea has many technical difficulties to overcome in the design of production line. The following is a case study of the famous black strip tea "Yinghong 9" processing at home and abroad.

Withering is the first process in the processing of red stripe tea. The main body of the withering machine is a flat bed with rotary conveyor belt. The conveyor belt is a mesh belt structure. A large wind fan is placed under the conveyor belt to enhance the withering effect. Under the conveyor belt, a set of gradually upward wind guide plates is designed and installed from the tail fan placement to allow the wind to penetrate the material layer vertically from bottom to top.

The conveyor belt is driven by a continuously variable speed motor, which can easily adjust the discharging speed in accordance with the continuous processing line. 5 withering machines were allocated on the production line to match the design output.