

The invention relates to a vertical crystallizer for further crystallization last massecuite cooling, comprising a vertical cylindrical body, equipped with pipes for loading and unloading massecuite and placed on the height of the case surface heat transfer, and mold additionally has placed in the annular space between the built-in vertical hollow pipe and hull mold stationary outlined horizontal generators winding surface heat step between which is 17% of the diameter of the shell mold consisting of parallel helical planes, inside which there are radial partitions sided rectangular cutouts in staggered near the side of the vertical inner hollow tube and lateral surface shell mold, and the cross sectional area of a stationary helical heat transfer surface is 1% of the cross-sectional area of the annular space of the mold, while the total heat exchange surface screw casing height is not less than the five Tiered placed stationary modules in the growing number of fixed helical surfaces heat in each, but no more than eleven.