

MOLD FOR ULTRA-THICK WALLED U-SHAPED COMPOSITE PRODUCT WITH

DEEP CAVITY

ABSTRACT

The present invention relates a mold for an ultra-thick walled U-shaped composite product with a deep cavity, including an upper mold cavity, a lower mold cavity, a slidable side-drawing insert, and an auxiliary mold clamping structure. The auxiliary mold clamping structure includes a first auxiliary mold clamping insert and a second auxiliary mold clamping insert. The first auxiliary mold clamping insert is fixed on the lower mold cavity, and the second auxiliary mold clamping insert is fixed on the slidable side-drawing insert. The slidable side-drawing insert is located on a side of an integral structure formed after the upper mold cavity is engaged with the lower mold cavity, and the slidable side-drawing insert longitudinally slides along the lower mold cavity. A formed product is located between the upper mold cavity, the lower mold cavity, and the slidable side-drawing insert. The present invention overcomes the difficulty in clamping a mold for an ultra-thick walled composite product with a deep cavity, and enables the formed product to have a uniform wall thickness and a smooth surface without a step. The thin-walled spliced structure solves the problem that the product with a deep cavity has poor surface quality caused by nonuniform heat transfer of an ultra-thick walled mold. The auxiliary mold clamping structure solves the problems that the inserts are prone to upsetting onto their side due to excessive heights and the mold clamping cannot be fulfilled due to insufficient manual thrust.

Figure 2-1