

## How to Choose Mold Steel Rolling Plate and Forging Die Blocks Reasonably

The most famous imported grades e.g., 1.2738, 1.2311, 1.2312, SP300, SP350.. They are pre-hardened forging die blocks.

While, what's the difference between die blocks and rolled plates ? You will be clear at a glance through its production process.

**Die Block** : EBT → LF → VD (low the content of [H], down the steel cracks, shrinkage, subcutaneous bubbles and The center loose) → Casting (protection on the argon) → Annealing (Slow cooling) → Ingot finish → Ingot heating → Hydraulic Press forging (3150T) → Heat treatment → Rough milling (four sides) → UT test → Cut ends → Package & Delivery

**Rolled plates** : A plan, EF → Secondary refining → Continuous casting → Rolling  
B plan, BF → Hot metal pretreatment → CL → Secondary refining → Continuous casting → Rolling

Trough the production process, block is a single production, rolling plate is a flow line production. For the normal grades P20, 718 etc, those materials which thickness less than 200mm are basically by EF rolling.

Rolling plate always come with uneven distribution, coarse grain size, non-standard material composition, and easy to produce cracks, sand holes, pitting, deformation after processing, burst or short service life of mold and so on.

During drawing process, the forging pressure can Run through at the center of the blank, dispersing and refining the center segregation.

The rolled plates within 100mm thickness can basically meet the ordinary mold requirements on the service life. According to costs control, the used materials by normal embryo factory is :

less than 100mm thick, use Wugang rolled plates

100mm - 200mm, use Baosteel rolled plates, mostly are BPD25, B30PH,, B30H

200mm - 500mm, use forging die blocks

Pre-hardened die blocks which thickness above 500mm, it usually take the customized way from forging mills - roughing process and then Q+T.

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