

AS AN ENGINEER AND AS AN ARTISAN

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Medal manufacturing by precision investment casting of a vacuum pressurization system.

It's supported with the technology as a mint engineer and the machine that's made possible by which.

And artisanic tecnic gives the style to the medal.

Process 1.1 WAX Modeling with Plants

Collected plants are used as the part of the wax mold.



Process 1.2 Putting letters



Process 1.3 Sprue Design



AS AN ENGINEER

Process 2 Gypsum filling

Fill the gypsum in the shell with the wax mold. Decompression of an air pump stops aerial remains.



Process 3.1 Lost Wax and calcination

By a process of lost wax, temperature up makes sure slowly that a gypsum mold won't be broken.

By a process of calcination, temperature sets in the tolerance temperature of the gypsum and plant finishes burning.

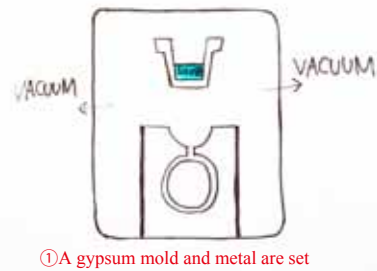


Process 3.2 Pre-Fusion to Silver 950

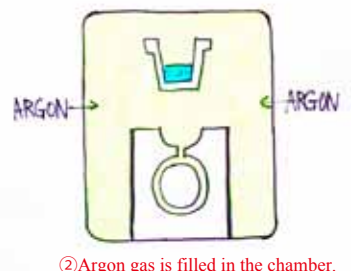
Metal is compounded and melted before mint.



Process 3.3 Casting



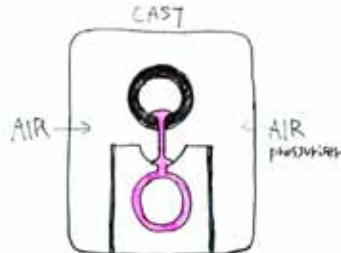
① A gypsum mold and metal are set in the chamber and it's discharged air.



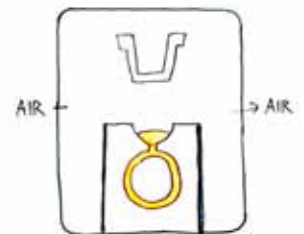
② Argon gas is filled in the chamber.



③ Metal is heated and melted.



④ A crucible is tilted and cast and then pressurized by an air compressor.



⑤ The pressurization state is maintained after that a valve is opened and it's returned to the atmospheric pressure.

Process 3.4 Take out from Gypsum

After mint, a gypsum mold is put in the water and a medal is taken out.

It is a process of heat-treatment after mint, so the timing put in the water is important.



Process 4.1 File work

The shape is corrected while shaving with a file. I do by handwork because the shape is complicated.



Process 4.2 Grinding finish

Grind works by whetstones and a spatulas.





Process 4.3 Seal

Carved seal are struck in to the medal fixed on a wax base.



Process 4.4 Refine





January 2016 けやきかる *Zelkova serrata*
98×106×8.5mm



I found strange leaves That were thick more clearly than other leaves MAY 5 2016
Camellia sasanqua 99×99×34mm



Cayratia japonica
August 3 2015
100×92×21.5mm

Material : Silver 950



そてつ
2015
Cycas revoluta
78×97×11mm



It spread on the ground and yellow flowers blooms at night こまつよいぐさ
かななづき October 2014 *Oenothera laciniata* 100×92×21.5mm



せんだんのふゆめならびしごくもんだい January 19 2015
107×106×49mm