

PRODUCER OF SPECIAL ALLOYS SINCE 1975

# SINGLE-SPRUE CASTING METHOD

#### **CYLINDER PREPARATION AND PREHEATING**

**CYLINDER:** You get the same results whether you opt for casting for free or controlled expansion, or rather the choice does not have any implication on the success of the single-sprue casting. **PREHEATING:** Maximum recommended temperature 850 °C (it is recommended to place the crucible containing the alloy in the furnace); extremely important is the time in which the alloy is kept at temperature:

NORMAL CASTING (without overcasting procedures): 30 minutes for 3X – 45 minutes for 6X CASTING WITH OVERCASTING PROCEDURES: 60 minutes for 3X – 90 minutes for 6X For those who use the FAST METHOD coating, the advice is not to wait more than 20 minutes from the moment you started with the dough to insert the cylinder in the preheated oven.



# STEP 2

STEP

## SPINNING

The most important step in order to obtain an excellent manufactured item - produced following the single-sprue casting protocol - is certainly the STABILIZATION DEVICE, which is nothing more than a burr without its tip and positioned in the most distal part of the two half-arches.



It is important that the stabilization device is made by using a material which is not castable, but rigid and stable just like tungsten.

#### APPLICATION OF THE CASTING SPRUE, or better called in our case NOURICE.

It is very important to place the reserve part (nourice) at 8mm from the structure; in order to distance the nourice, we can use a small channel with a diameter of 3mm.



The sprue should preferably be placed on the incisal edge of the abutment tooth; if not, it can also be placed on an intermediate tooth. In both cases, apply the sprue close to the center of the structure. It is important to keep the model at a 45° (degrees) inclination angle to the plane.



#### **RADIATORS AND OUTLETS**

In the most distal part, place 2.5 mm pins which rest directly on the cone.



It is not discouraged to use radiators in the thicker parts and small wax wires in the thinner parts.

### CASTING

# TYPE OF CASTING

**OPEN FLME CASTING:** for those who use the open flame, it is advisable to use a mixture of propane gas and oxygen (Propane Gas 1bar / Oxygen 2.5bar).

**INDUCTION CASTING OR DIE-CASTING:** follow the IFU instructions for the alloy and set the correct casting temperature.



All the works shown in the article and the article itself were made by the dental technician Adriano Richelli

MESA ITALIA srl Via dell'Artigianato 37 - 25039 Travagliato (BS) - Italy Tel. +39 030 6863251 - east-europe@mesaitalia.it - www.mesaitalia.it