Patents

MAIN REGISTERED PATENTS BY FACI EUROPE SPA

1) PROCEDURE FOR THE RECOVERY OF THE SALINE DERIVATIVES COMING FROM CLEANERS OF NON FERROUS METALS REFINERIES

The general scheme foresees different solutions, from the fusion to the by-pass, also in a opportunely correct manner, of saline dumps coming from the downstream damping plants of the melting cycle.

2) CONTROL OF THE CELLULAR STATE OF THE GRAY CAST IRONS WITH ADDITION OF RARE EARTHS

The trace elements, or also secondary elements constitutionally present in flake cast iron, for instance the bismuth, can alter sensitively the dimensions of the eutectic cells, and therefore their number for unity of surface, with all the consequent defects, micro-shrinkage defects included. The addition to the bath of rare earths derivatives opportunely selected, allows to cancel these interferences of difficult control.

3) PROCEDURE FOR THE CONTINUOUS CASTING OF STEELS

Boron based steels; controlled grain austenitic steels and balanced steels, with this procedure are poured in continuous line without incurring in the obstruction problems of feeding apparatuses. The quality of the produced steels results particularly elevated.

4) FUSION PROCEDURE WITH ROTARY OR FLAME DIRECT STATIC FURNACES

Once found the origin of the thermodynamic and kinetic chemical mechanisms that compromised the useful life of the refractory masses, as well as the quality of the produced irons, the procedure, already economic in the calculation of the combustible and comburent gas consumptions, has decupled the resistance of refractories as well as it has removed the qualitative limits of the produced irons, from the flake to the spheroidal ones.
PATENT EXTENSION
Recovery of thermal energy connected to the gaseous mass of combustibles and its use for the fluids heating of current use.

5) LITHIUM AND RARE EARTHS BASED DEOXIDIZERS FOR STEELS

By completing the aluminium with lithium, calcium, titanium and rare earths, can be reached levels of deoxidation; of inclusional morphology modification; of bath detergency and liquid flowability definetely higher.

6) CERAMIC FILTERS FOR THE POURING OF IRON CASTINGS

A special geometry allows to prevent the slide of pre-melted inoculant blocks placed in the mould, solving the problems of automatic joining of the two half moulds on the bottom of the automatic lines, as well as can answer to the necessity of correcting, inside the mould, the structural configuration of castings simultaneously poured.

7) ELABORATION OF NON FERROUS ALLOYS WITH RARE EARTHS

Alloys for modification interventions; for the de-gasing and macro-structural refining; to increase the smoothness, and then lower also the working pressure in die-casting, even exalting the technological characteristics of finished parts.

8) NUCLEANTS FOR CAST IRONS ALSO FOR HYPEREUTECTIC IRONS

In the field of the high equivalent-carbons, the answer to the inoculation is always precarious or insufficient. With the nucleation prestigious matrixes and molds of A type graphitic phase are assured.

9) LIQUID STATE ELABORATION OF THE ELECTRIC FURNACE PRE-MELTED CAST IRONS

The adding to the bath of particular metallic ions allows to modify the nature of fluid slags of hardly flotation, trigging at the same time a strong nucleant capability of the cast iron, a long time effect.

10) PROCEDURE FOR THE PRODUCTION OF IRON SAFETY CASTINGS

Fruit of a long industrial experimentation, the procedure involves the production of castings with lines of high automation.