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**SCIENTIFIC AND ORGANIZATIONAL ACTIVITY OF UKRAINIAN
SCIENTISTS IN THE FIELD OF CONTINUOUS CASTING IN THE 70
YEARS OF THE TWENTIETH CENTURY**

The article presents historical data and technological parameters of one of the main achievements in the field of metallurgy in the twentieth century – continuous casting.

The reasons preceding the appearance of continuous casting are given. One of the first scientists to propose the principle of continuous casting was Henry Bessemer. Further development of this process is associated with the casting of non-ferrous metals and alloys and with the names of Siegfried Jungans, the Myasoedov's brothers, V. G. Golovkin and many other scientists.

After the accumulation of technological and thermophysical parameters of stable casting, this process began to be used not only for casting non-ferrous metals and alloys, but also for casting steel and cast iron.

The first continuous casting installations were of the vertical type. They had a height of more than 30 m. Molten steel was poured at the top of the unit. As the cast billet was lowered down, it was cooled and cut into dimensional parts, removed at

the bottom of the installation. In order to reduce the height of the installation, special wells were built to collect blanks. Such installations had a crystallizer, which was given mechanical vibrations with different amplitudes and applied a lubricant of mineral oils to its walls.

The development of the general design of continuous casting units was most successfully carried out at the Kharkiv research Institute of metals under the guidance of future professor Vladimir Timofeevich Sladkoshteev.

A list of the main works of ukrainian scientists in the field of metallurgy and foundry production on continuous casting is given, for example, the classic work on the design and manufacture of a ribbed mold.

Ukrainian scientists managed to lay the scientific foundations of thermal physics, operational and technological indicators of continuous casting. Because of this, continuous casting plants are now the main ways to cast steel all over the world. The process of improving them continues today.

Keywords: *continuous casting, metallurgy, steel, non-ferrous metals, radial installation, crystallizer, rolled steel.*