

Chinese firm initiates R&D of liquid nitrogen biological containers for vaccines storage

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CIMC Enric's Subsidiary Deploys Vaccine Storage Market



CIMC Enric Holdings has announced that its subsidiary Zhangjiagang CIMC Sanctum Cryogenic Equipment Co., Ltd recently started R&D of liquid nitrogen biological containers for long-term cryogenic storage of vaccines, stem cells, plasma, semen, embryos and various tissues and organs for the needs of the biomedical industry.

The liquid nitrogen biological container will be designed based on the GB14174 "large-caliber liquid nitrogen container" standard. Upon successful development, the equipment will adopt advanced technologies such as high vacuum multilayer insulation, electronic temperature control, and liquid nitrogen dispersion to make the intelligent cooling and constant temperature process uniform and stable. It is expected that the product will provide immersion storage and vapor phase storage in two ways, providing users with a fully automatic, safe and reliable cryogenic liquid nitrogen storage system.

The equipment is specifically developed for cryogenic storage of biological samples. In the future, the finished equipment is expected to have many outstanding features including small size, large storage as well as superior temperature uniformity and stability. The equipment will have advanced temperature and liquid level monitoring, an alarm system and a remote monitoring program that can be connected to the Internet. The equipment body will be made of high-quality stainless steel with its own moving and braking device. It will support full-opening and has large opening for sample storage. The equipment is designed with lowest-possible liquid nitrogen consumption for large sample storage capacity and better cost savings per unit sample.

It is worth noting that when the equipment is stored in the gas phase, the temperature difference in the entire storage area will not exceed 10°C, and the minimum temperature at the top of the design freezer shelf can reach -190°C, which will perfectly fit the temperature requirement of 20°C to -80°C for the current COVID-19 vaccine developed by global pharmaceutical companies.

The equipment can also effectively meet the cryogenic storage requirements of various biological samples by most drug distribution companies, hospitals, pharmacies, disease control centers, testing centers, biopharmaceutical companies,

scientific research institutes and other institutions. The equipment will provide a strong protection for future scientific research, disease diagnosis and treatment.