Liquid Nitrogen (LN_2) Plant

Applications

- Medical and Pharmaceutical: Cryopreservation of biological samples, vaccines, and pharmaceuticals.
- Food Industry: Flash freezing of food products to preserve quality and extend shelf life. Cryogenic grinding of spices and other materials.
- Research and Development: Used in laboratories for various experiments requiring low temperatures.
- Cryogenics: Applications in superconductivity.
- Cryotherapy (e.g. removal of skin abnormalities)
- Cryopreservation of biological samples (e.g. organs, tissues, human and animal semen, fertilized eggs)
- Bacteria, virus manipulation
- Livestock industries (cattle branding)
- Industrial Applications: Inert atmosphere for welding and other processes to prevent oxidation. Cooling during manufacturing processes, such as metal fabrication.
- Industries of different kinds (shrink-welding, CCD cameras, NMR spectrometers and MRI systems, high-field superconducting magnets, spacecraft thermal testing,

shielding materials from oxygen exposure, controlled-evaporation or very low temperature reaction processes in chemistry, injecting nitrogen just before sealing or capping bottles or containers, freezing and transport of food products)

- Cryogenic insulation in oil industry (e.g. to freeze water and oil pipes when a valve is not available to block fluid flow to the work area)
- Avant-garde and molecular cuisine or gastronomy (instant freezing, ice cream, liquid nitrogen cocktails “cauldron effect”, food experiments and preparation)

Details of Liquid Nitrogen (LN2) Plant

Brand	LabTech SRL, Italy
Model	LNG80+
Sponsored Agency	DST- PURSE program (Phase -2)