## LIQUID-TO-SOLID CO2 CONVERSION

Dry ice production involves converting a liquid source of carbon dioxide into its solid state. For every 1 kg of dry ice you wish to produce, you will required x 2.2 the amount in Liquid (i.e. 100 kg of dry ice = 220 kg LCO<sub>2</sub>).

## To establish your own dry ice production, you'll need variations on the following infrastructure, depending on dry ice volumes





- 1. Access to liquid CO2 in your region.
- **2.** An on-site liquid CO<sub>2</sub> reservoir. Dry ice production systems don't run on small cylinders.
- **3.** Bulk liquid CO<sub>2</sub> tanks necessitate a reinforced concrete foundation for stability.
- Insulated pipe work to connect your exterior liquid CO<sub>2</sub> reservoir to the dry ice production system.
- **5.** A Cold Jet dry ice production system, protected from moisture and the elements, with plenty of room for production.

- **6.** A three-phase electric power source for the Cold Jet dry ice manufacturing system.
- **7.** Safety measures, including artificial ventilation to maintain airflow within the manufacturing facility.
- 8. Another crucial safety measure is a CO<sub>2</sub> PPM monitor.
- **9.** Insulated containers to store dry ice, minimizing sublimation (solid-to-gas transition).

Establishing your own dry ice production becomes feasible when your demand for purchased dry ice reaches a significant level (i.e. >1,100 lbs/week or >500 kg/week), or when continuous supply is crucial for your cooling requirements.

The investment for a dry ice manufacturing system alone (excluding infrastructure expenses) can start from \$40,000 on a system that can produce up to 176 lbs/hr (80 kg/hr). If this sounds suitable for your needs, please reach out to us for consultation on the optimal path forward.



## Learn more at coldjet.com