



Produced by CROSBY HOPS™

# A UNIQUE TECHNICAL ADVANTAGE

**Cryogenic lupulin pelletization** is changing the way brewers think about their craft. There are many opinions—and some misconceptions—about this emerging technology. Below we outline some of the differences between **CROSBY HOPS**' cutting-edge cryogenic patent-pending process and traditional T45 concentrated lupulin pellets.

## CGX™



### Minimal processing, maximum impact



Much **colder processing** environment due to cryogenic technology (down to -70F° is possible)



More **controlled environment**, minimal oxygen contact during production due to cryogenic injection techniques in key processing areas



Only concentrated hop pellet process with **no mechanical milling** of lupulin prior to sieving and separation



Only concentrated hop pellet process that **does not use mechanical augers** to convey delicate lupulin glands during processing



Uses **nitrogen (N<sub>2</sub>) enriched pneumatic conveyance** to gently convey hops and lupulin powder during processing



**More access:** CGX™ reseller program is an innovative, one-of-a-kind way to allow brewers broader access to cryogenically processed hops



Liquid nitrogen (LN<sub>2</sub>) cold pellet processing and proper pellet die compression ratios create a **softer, craft friendly pellet**

## T45

- **Lacks a brand promise and quality guarantee**
- **Uses mechanical refrigeration** to freeze hops for lupulin separation
- Pellet processing temperatures are typically higher compared to cryogenic alternatives which **can cause volatilization of key flavor and aroma compounds**
- Requires more intensive processing, including mechanical milling of lupulin, which **can damage lupulin glands and increase hop enzymatic activity**
- **Antiquated process** from the 1960's, much of the equipment still in operation today is from this era
- More **difficult to achieve higher levels of concentration** due to limitations of mechanical refrigeration
- Originally **designed for large industrial brewers**, to reduce shipping and handling costs
- The physical T45 pellet is **typically harder and denser** than cryogenically produced pellet products, which can create challenges for modern craft hopping techniques