Linde Cryoflex Through Feed Mesh Conveyor Flat Bed Tunnel Process Line - Freezer

Stock No	OZ2105
Manufacturer	Linde
Model	CTF/A4-60
Year of Manufacture	2014
Serial	1139552
Condition	From a working environment, Excellent Condition, Current Model
Internal Size (WxDxH mm)	600 x 3300 x 75mm working height
Max Temp	Upgrade to 300°C tempering & 60°C Drying
Other Info	Very flexible, up gradable equipment
Location	Our Central Warehouse, Aldridge, UK
Weight (kgs)	1500
External Dimensions (WxDxH mm)	1760 x 4300 x 2600

Description

CRYOFLEX T – Tunnel freezer

Many manufacturers in industries such as automotive, aviation, aerospace and machine tooling rely on heat treatment processes to improve material properties. In the constant search to optimise heat treatment results, more and more players are focusing on sub-zero treatment – a cryogenic step that follows
a normal heat treatment process.

By transforming retained austenite into martensite and by precipitating fine-carbides, sub-zero- treatment delivers the following key benefits:

* Improved hardness
* Dimensional stability
* Increased wear resistance
* Extended part lifetime

Increased wear resistance and part lifetime Wear resistance and the lifetime of high-alloy and tool steels can be significantly increased through the correct application of sub-zero treatments.

Beside the well-known benefits coming form sub- zero treatment, Linde offers solutions for cryogenic treatment as well. These cryogenic treatments are typically performed in the temperature range from –150 to –180 °C and take 24 to 72 hours (see illustration above). Beyond the transformation of retained austenite to martensite, cryogenic treatment has the added effect of precipitating fine carbides in the steel microstructure. This improves wear resistance and extends service life even further.

Increased hardness and improved dimensional stability
At room temperature, retained austenite is unstable and will slowly transform over time. This transformation can cause dimensional changes, resulting from rearrangement of the crystallographic structure.

Components that require a high degree of precision must be engineered to avoid this uncontrolled transformation. This can typically be achieved with a sub-zero treatment in the temperature range from –60 to –100 °C over a period of 1–2 hours (see illustration above). This cold treatment not only improves dimensional stability but also increases hardness. The increase in hardness is attributable to the transformation of the steel microstructure from austenite to martensite, which is stronger and harder.

Advanced safety:
* Automatic safety system disconnecting liquid nitrogen (LIN) supply if the door is inadvertently opened during the process cycle
* Second valve that disconnects the LIN supply if the first valve fails
* Optical warning signals
* Option to connect atmosphere controller for the surrounding environment

State-of-the-art technologies:
* PLC controller
* User-friendly control program
* Robust stainless steel design for extended lifetime
* Ease of installation and relocation

CRYOFLEX also comes with the following optional extras:
* Tempering option (heating up to 300 °C)

* Drying option (heating up to 60 °C) to avoid humidity condensation on the treated parts
* Gaseous nitrogen purging to prevent from moisture
* Cooling down to –180 °C
* Guillotine door (CRYOFLEX C)
* New: Temperature tracking and reporting as well as certified thermocouples to conform with aviation, aerospace and automotive requirements (AMS 2750E/CQI-9)

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.