

NITREX

NX PIT-TYPE BATCH SERIES

NX TURNKEY SYSTEM

The heavy-duty NX series features a selection of pit-type batch furnaces for medium to large processing and is suitable for a wide range of applications.

By incorporating multiple controlled heating zones, temperature uniformity inside the retort is $\pm 5^{\circ}\text{C}$ (9°F) or better. As part of a turnkey system, the NX furnace operates completely automatically and autonomously, with little human intervention. All phases of the process, including purging, heating, nitriding, and cooling are carried out in a single continuous cycle. Closed-loop process control allows the system to automatically adjust to changes in nitriding/nitrocarburizing conditions that occur during the process cycle.

NX-1015 TURNKEY SYSTEM



NX PIT-TYPE BATCH SERIES

- PRACTICAL
- DEPENDABLE
- EFFICIENT
- ECONOMICAL



Eco-friendly technology

FEATURES

- Separate heating zones for accurate temperature control
- Uniform temperature distribution through independently controlled heating zones
- Hot gas recirculation fan for a fast load heat-up rate
- Light ceramic fiber insulation for efficient heating and cooling
- Long-lasting Kanthal[®] heating elements
- Silicone cover seal for gas tight retort
- Software module for data archiving and reporting as well as remote diagnostics
- SCADA connectivity

BENEFITS

- Preconfigured and factory tested
- Pretested for metallurgical results
- Fully automated operation for repeatable results
- Superior case properties per customer specifications
- Various case configurations possible
- Clean, environmentally-friendly, and sustainable processes

CANADA/USA

+1 514 335 7191
nitrex@nitrex.com

POLAND

+48 32 296 66 30
nitrex.europe@nitrex.com

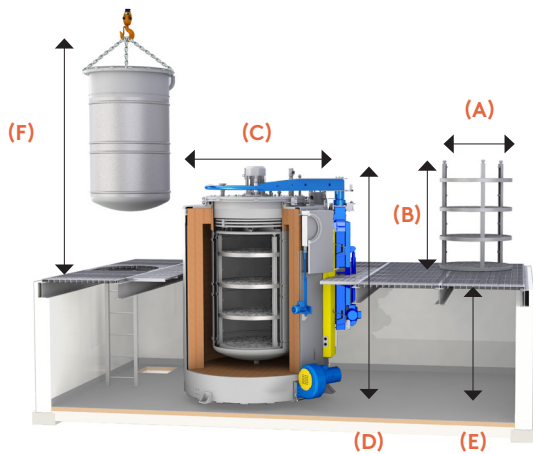
CHINA

+86 (0) 10 6257 3050
nitrex.china@nitrex.com

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nitrex.com

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OPTIONS AVAILABLE

- Accelerated-cooling system
- Ammonia Dissociator
- Effluent neutralizing
- Racking
- Water cooling system

SPECIFICATIONS

MODELS	RACK SIZE		LOAD CAPACITY	FURNACE DIAMETER (C)	FURNACE HEIGHT (D)	REQUIRED PIT DEPTH (E)	MIN. HEIGHT CLEARANCE (F)
	(A)	(B)					
NX-615	23½" / 600 mm	59" / 1500 mm	2200 lbs / 1000 kg	58" / 1473 mm	116" / 2952 mm	59" / 1500 mm	128" / 3262 mm
NX-620	23½" / 600 mm	78¾" / 2000 mm	2600 lbs / 1200 kg	58" / 1473 mm	136" / 3454 mm	79" / 2000 mm	148" / 3762 mm
NX-815	31½" / 800 mm	59" / 1500 mm	3300 lbs / 1500 kg	66" / 1676 mm	112" / 2845mm	59" / 1500 mm	128" / 3262 mm
NX-820	31½" / 800 mm	78¾" / 2000 mm	3850 lbs / 1750 kg	66" / 1676 mm	135" / 3437 mm	79" / 2000 mm	149" / 3781 mm
NX-825	31½" / 800 mm	98½" / 2500 mm	4400 lbs / 2000 kg	66" / 1676 mm	155" / 3931 mm	98" / 2500 mm	168" / 4262 mm
NX-1015	39" / 1000 mm	59" / 1500 mm	4400 lbs / 2000 kg	74" / 1880 mm	116" / 2952 mm	59" / 1500 mm	128" / 3262 mm
NX-1020	39" / 1000 mm	78¾" / 2000 mm	5500 lbs / 2500 kg	74" / 1880 mm	136" / 3452 mm	79" / 2000 mm	148" / 3762 mm
NX-1025	39" / 1000 mm	98½" / 2500 mm	6600 lbs / 3000 kg	74" / 1880 mm	156" / 3952 mm	98" / 2500 mm	168" / 4262 mm
NX-1215	47¼" / 1200 mm	59" / 1500 mm	6600 lbs / 3000 kg	86" / 2184 mm	116" / 2952 mm	59" / 1500 mm	128" / 3262 mm
NX-1220	47¼" / 1200 mm	78¾" / 2000 mm	8400 lbs / 3800 kg	86" / 2184 mm	136" / 3452 mm	79" / 2000 mm	148" / 3762 mm
NX-1225	47¼" / 1200 mm	98½" / 2500 mm	9900 lbs / 4500 kg	86" / 2184 mm	156" / 3952 mm	98" / 2500 mm	168" / 4262 mm
NX-1230	47¼" / 1200 mm	118" / 3000 mm	11,570 lbs / 5250 kg	86" / 2184 mm	175" / 4452 mm	118" / 3000 mm	187" / 4762 mm
NX-1625	61" / 1550 mm	98½" / 2500 mm	13,200 lbs / 6000 kg	94" / 2388 mm	157" / 3979 mm	98" / 2500 mm	174" / 4432 mm
NX-1630	61" / 1550 mm	118" / 3000 mm	15,400 lbs / 7000 kg	94" / 2388 mm	185" / 4688 mm	118" / 3000 mm	190" / 4817 mm
NX-1635	61" / 1550 mm	137¾" / 3500 mm	17,600 lbs / 8000 kg	94" / 2388 mm	204" / 5188 mm	138" / 3500 mm	209" / 5317 mm
NX-1645	61" / 1550 mm	177" / 4500 mm	22,000 lbs / 10,000 kg	94" / 2388 mm	244" / 6188 mm	177" / 4500 mm	249" / 6317 mm

NITREX

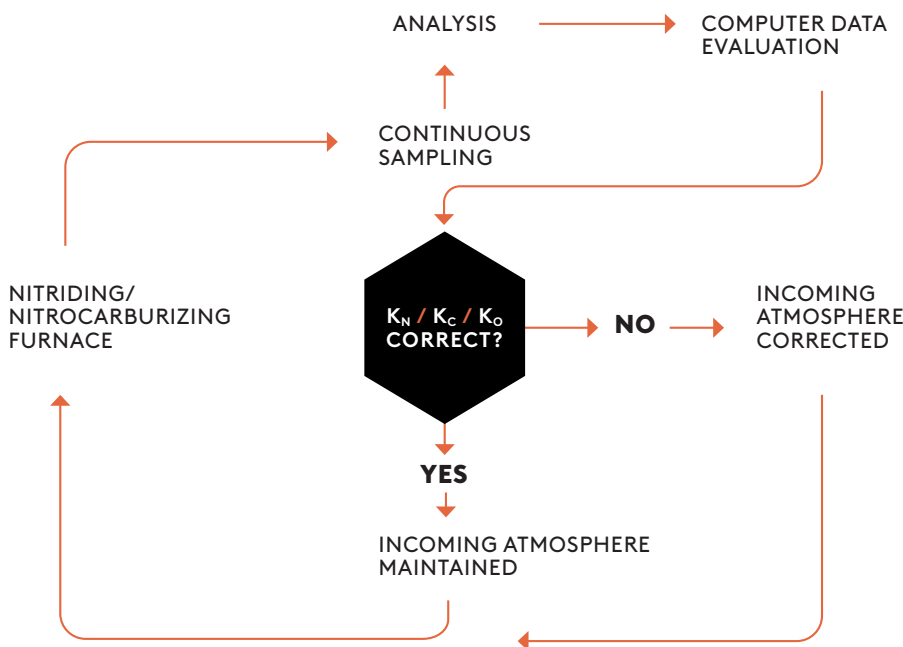
EXPERT CONTROL SOFTWARE & NITREG® FAMILY OF TECHNOLOGIES

The NITREG® family of technologies applies individually customized processes to different applications and materials for optimum results. The process is carried out in a closed-loop circuit, which enables the control system to respond automatically to the changes in nitriding conditions that occur during the process cycle.

The control system continuously samples and analyzes the furnace atmosphere, and based on the data extracted, it adjusts the process parameters in order to maintain the preset value of the K_N , K_C and K_O .

CLOSED-LOOP PROCESS CONTROL

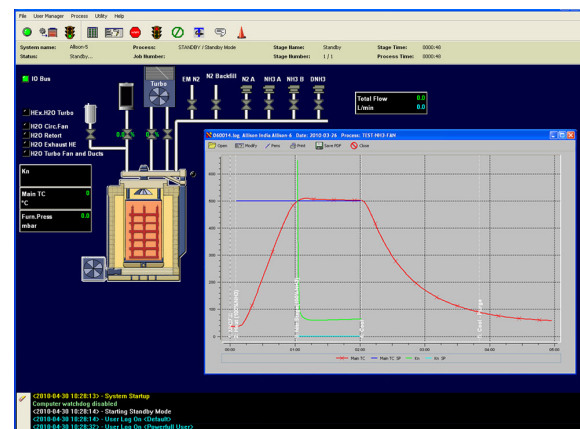
This closed-loop process control enables the system to respond automatically to the changes in nitriding/nitrocarburizing conditions that occur during the process cycle.



NITREG® TECHNOLOGY
offers customized
processes for a variety
of applications & materials
with optimum results.

INTUITIVE USER INTERFACE

The user interface contains data points on the furnace, on processes, jobs, and stages, displaying variables such as temperature, flows, power output, nitriding potential, as well as the actual status of the nitriding process and system equipment.



- Intuitive control interface contains all information on the furnace
- Over 30 signal sensing points are continuously displayed on the control screen
- The control software includes troubleshooting, emergency and calibration menus

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AUXILIARY EQUIPMENT

EVERYTHING FOR YOUR NITREX SYSTEM

A Nitrex system is not complete without the right auxiliary equipment to support, enhance, and optimize the nitriding/nitrocarburizing process and operational efficiency.

All equipment is properly sized and vetted to ensure maximum performance from your Nitrex system.

AUXILIARY EQUIPMENT
designed to enhance
the functionality of a
Nitrex nitriding system
and ensure optimum
performance



Eco-friendly solutions

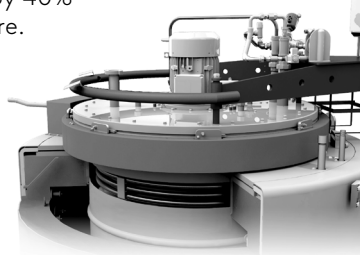
RACKING

Easy-to-assemble
Inconel baskets
and trays
constructed
for safe and
easy loading.



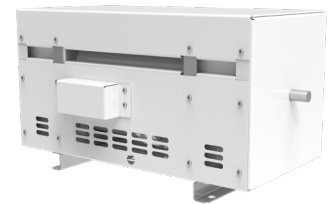
ACCELERATED COOLING

Internal accelerated
cooling system
to reduce cooling
time by 40%
or more.



AMMONIA DISSOCIATOR

Economical and safe supply
of dissociated ammonia.



EFFLUENT NEUTRALIZER

Eliminates residual ammonia
and/or other pollutant gases from
nitriding/nitrocarburizing
system exhaust.



WATER COOLING

Recirculates clean cooling water
to prolong the longevity of
furnace elements.



ACCELERATED WATER COOLING SYSTEM

Maintains a consistent and
controlled supply of clean water
to the cooling coils of the
furnace's accelerated cooling
internal heat exchanger.



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