

NITREX

INS SERIES NEUTRALIZERS

ECONOMICAL PROCESSING

Highly recommended for gas nitriding /nitrocarburizing furnaces, the Nitrex INS line of neutralizers is designed to reduce residual ammonia and/or other pollutants in the exhaust gas.

WIDE RANGE OF APPLICATIONS

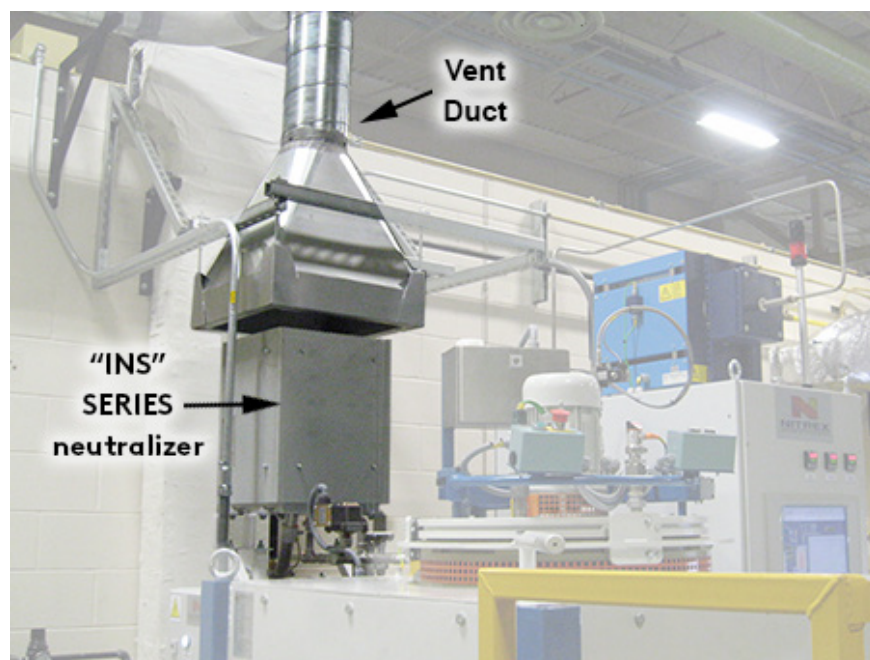
The INS neutralizers are generally installed on Nitrex furnaces but are equally effective for retrofitting virtually any other type or make of furnace or application using ammonia gas.

In addition to nitriding, nitrocarburizing, and other heat-treating processes, these units also benefit various industries by effectively neutralizing emitted effluent gases.

DIFFERENT SIZES FOR DIFFERENT FLOWS

INS series neutralizers are available in five sizes (tied to nominal effluent atmosphere flows): 11, 32, 64, 106, and 159cfh (5, 15, 30, 50 and 75 l/min)

The equipment can handle a wide range of atmospheres of diverse chemical compositions. For example, in a nitriding furnace, this would mean from lean (low ammonia) mixtures to 100% NH₃ at nominal flows of up to 159 cfh (75 l/min).



FEATURES

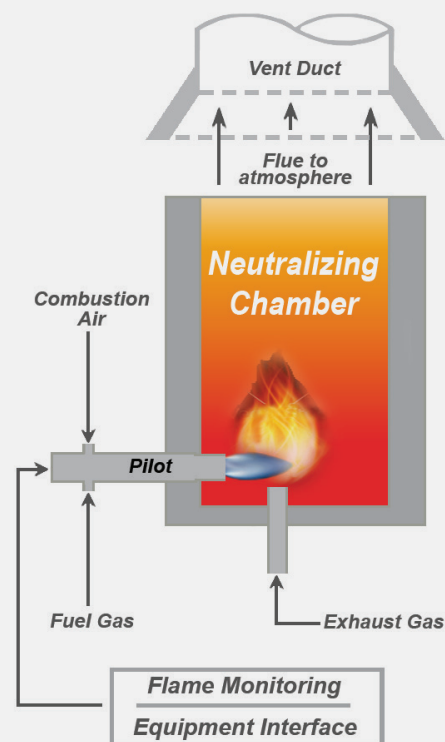
- ECONOMIC SOLUTION
- LOW OPERATING COSTS
- LOW EMISSIONS
- CONNECTIVITY TO FURNACE CONTROL



Eco-friendly technology

DESIGN

The INS series neutralizer consists of a neutralization chamber, pilot burner, fuel gas train, and control system. The control system features a flame monitoring device that automatically triggers an alarm if the flame is extinguished, relaying the signal to the furnace's control system.



INS Neutralizer Schematic

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INS SERIES NEUTRALIZERS

OPERATION

The equipment operates on the principle of chemical conversion of ammonia (or other pollutant gases) through oxidation in a high-temperature flame.

FEATURES

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MODELS & SPECIFICATIONS*

OPERATING CHARACTERISTICS	UNITS IMPERIAL/METRIC	INS-5	INS-15	INS-30	INS-50	INS-75
MAXIMUM PROCESS GAS FLOW	cfh	11	32	64	106	159
	lpm	5	15	30	50	75
MAXIMUM THERMAL OUTPUT	btu/hr	13,600	29,000	41,000	58,000	72,000
	kW	4	8.5	12	17	21
FUEL GAS RATED INPUT	btu/hr	10,200	17,000	17,000	17,000	17,000
	kW	3	5	5	5	5
MAXIMUM AIR DRAW	cfh	159	320	448	618	760
	m³/h	4.5	9.1	12.7	17.5	21.5
MAXIMUM TEMPERATURE	°F	1700				
	°C	930				
CONTROL VOLTAGE/FREQUENCY	VAC/Hz	110/220 - 50/60				
DIMENSIONS (H X L X W)	inches	20 x 10 x 10	30 x 13 x 13	38 x 16.5 x 16.5	43 x 18.5 x 18.5	47.25 x 22.25 x 24.5
	mm	630 x 250 x 250	760 x 330 x 330	970 x 420 x 420	1100 x 470 x 470	1200 x 566 x 624

* Data for information purposes and subject to change.

IN-SERIES

OPTIMIZED FOR HIGHER GAS FLOWS AND ENHANCED EMISSION CONTROL

Engineered for stringent pollutant management and high-efficiency performance.



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