



# Mini Inert Air Systems

ECONOMICAL SOLUTION FOR PROTECTING ALL YOUR TRANSFORMER OIL

*Mini Inert Air Systems (MN2) are lightweight, compact and inexpensive N2 pressure regulating devices for virtually all transformer oil preservation applications. Possible uses include oil tanker trucks, transformers, load tap changers and bulk oil storage systems.*



MN2 utilizes replaceable nitrogen tanks and three-stage pressure gauge for low gas supply—MN2 pictured here mounted on portable oil tanker truck (nitrogen tanks NOT included).

**Customer Configurable**

SEE BACK SIDE FOR PART NUMBER CONFIGURATION TOOL.

## MAINTAIN TANK PRESSURE

Designed as an economical solution for protecting transformer oil from oxidation and moisture absorption, the Waukesha® Mini Inert Air System maintains a regulated nitrogen blanket on virtually any oil storage tank system. Like the full size inert air systems, the MN2 utilizes sophisticated pressure regulators and valves to ensure tank pressure stays between 0.2 psi and 5.5 psi at all times.

## THREE-STAGE PRESSURE REDUCER ADJUSTMENT

The pressure reducer assembly regulates the flow of nitrogen gas from supply cylinder to storage tank in three stages:

**Stage 1** Reduces nitrogen gas flow pressure from the cylinder from 3000 psi to 100 psi.

**Stage 2** Reduces gas pressure from 100 psi to 7 psi.

**Stage 3** Reduces gas pressure from 7 psi to 0.5 psi and controls the flow of gas to the tank. Stage 3 regulation can be bypassed for purge applications.

## TANK PURGING

Nitrogen gas pressurizing system may be used to quickly purge the storage tank of contaminated gas or air. Turning the by-pass regulating valve to the by-pass position allows fresh nitrogen to flow directly from the 2nd stage regulator, through a by-pass line, to the tank inlet at 7–8 psi, instead of the 0.5 psi standard regulation. In addition, a manually operated tank pressure relief valve located inside the enclosure helps ensure operator safety when disconnecting pressure lines.

## CABINET SPECIFICATIONS (3/8" cabinet mounting hardware NOT included)

**Material:** Cabinet – 14 ga. NEMA style carbon steel; Hinge – Piano type, full length of enclosure; Cabinet Handle – Quarter turn latch w/ provision for padlocking

**Sealing Provisions:** Rubber door gasket

**Viewing Port:** 5-1/2" diameter polycarbonate

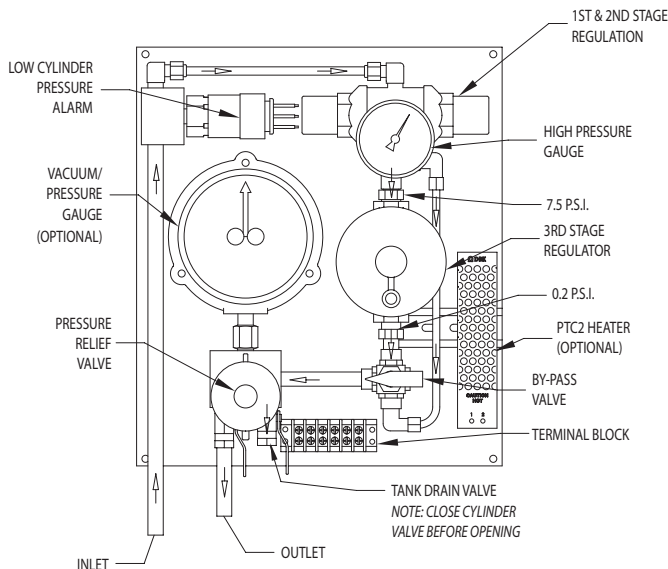
**Exterior Finish:** ANSI 70 (gray) polyurethane topcoat

**External Seams:** Continuously welded

**Mechanical Strength:** For added rigidity, all internal components are mounted on back of inside panel

**Wiring:** FEP wire with ring tongue terminals

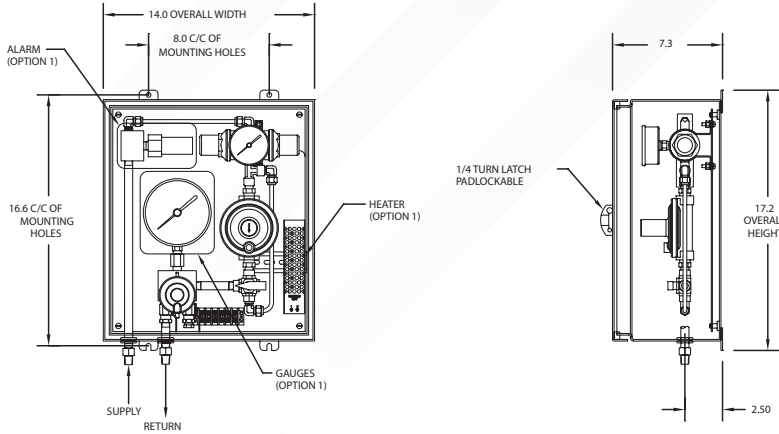
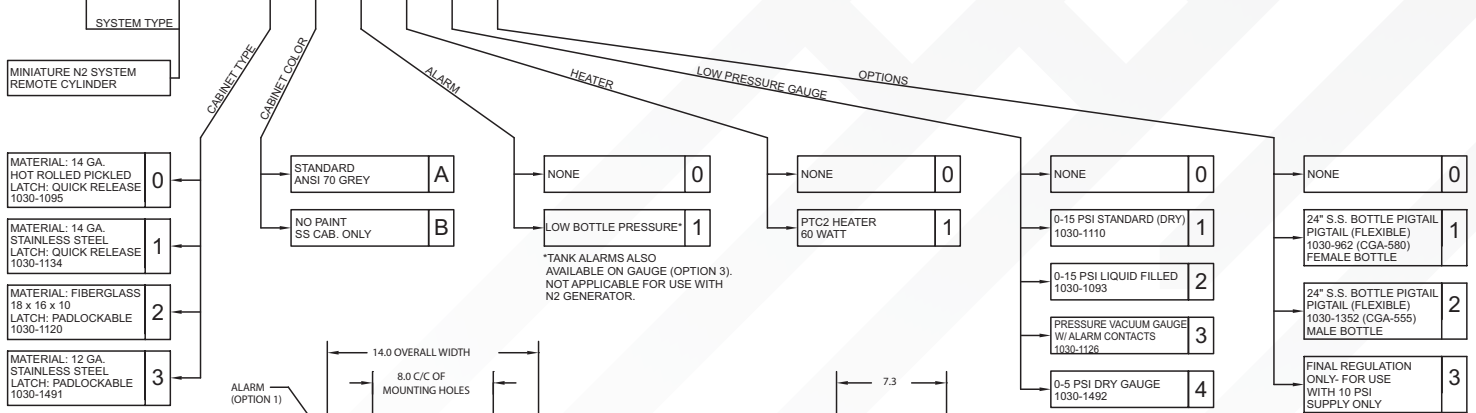
**Custom cabinet options available upon request to meet specific customer needs.**



# Build Your Own Part Number Using Configuration Below

**MN2 - XXXXXX**

NOTE: 3/8" cabinet mounting hardware is NOT included.



Recommended gas supply cylinder is a standard, commercially available 244 cu.ft. nitrogen gas tank pressurized to 2000 psi. Replacement cylinders should meet all required pressure vessel specifications and be filled with oil-pumped nitrogen or nitrogen with a certified dew point of -40°C. Nitrogen consumption is dependent on transformer load variations and on the condition of gas pressurizing equipment. **Cylinder must be replaced when supply pressure gauge reads 200 psi or below. The MN2 does NOT ship with a nitrogen gas cylinder.**



Supply and tank pressure gauges on the Mini Inert Air System are easily viewed through a large viewing port on the cabinet door.

## GAUGES AND OPTIONS

2" pressure gauge provides visual indication of supply cylinder pressure while a standard 4" pressure gauge monitors tank pressure and is also available in a vibration-resistant, liquid-filled version for transportation applications. Optional contacts signal if gas pressure at the supply cylinder drops below 200 psi or storage tank pressure falls outside the user set point, and a heater assembly can be added for extreme cold weather conditions. Cabinets available in either standard hot-rolled pickled steel, stainless steel or fiberglass construction options; all come standard with padlockable, weather-resistant quarter turn latches.

