

# NITROGEN BOOST

LN<sub>2</sub> SUPPLY SYSTEM FOR OZONE APPLICATIONS

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The Nitrogen Boost System (NBS) is a compact, hassle-free alternative to conventional nitrogen generation skids. The NBS produces consistent, dry gas as required for ozone generation. It consists of a Perma-Cyl® MicroBulk Storage System that is fully palletized with all the required instrumentation for most water treatment applications.

One pallet contains the storage, pressure reducing manifold and alarm panel. The complete packaged LN<sub>2</sub> manifolded system is designed to be simple, effective and easy to implement when nitrogen is needed in ozone applications.



## PRODUCT ADVANTAGES

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- Fully integrated for drop and go installation
- Pallet base allows for easy forklift install
- Designed for outdoor installation
- Low maintenance, no moving parts, no noise
- Stainless steel construction for long life
- Minimal concrete needed for anchorage

## PRODUCT FEATURES

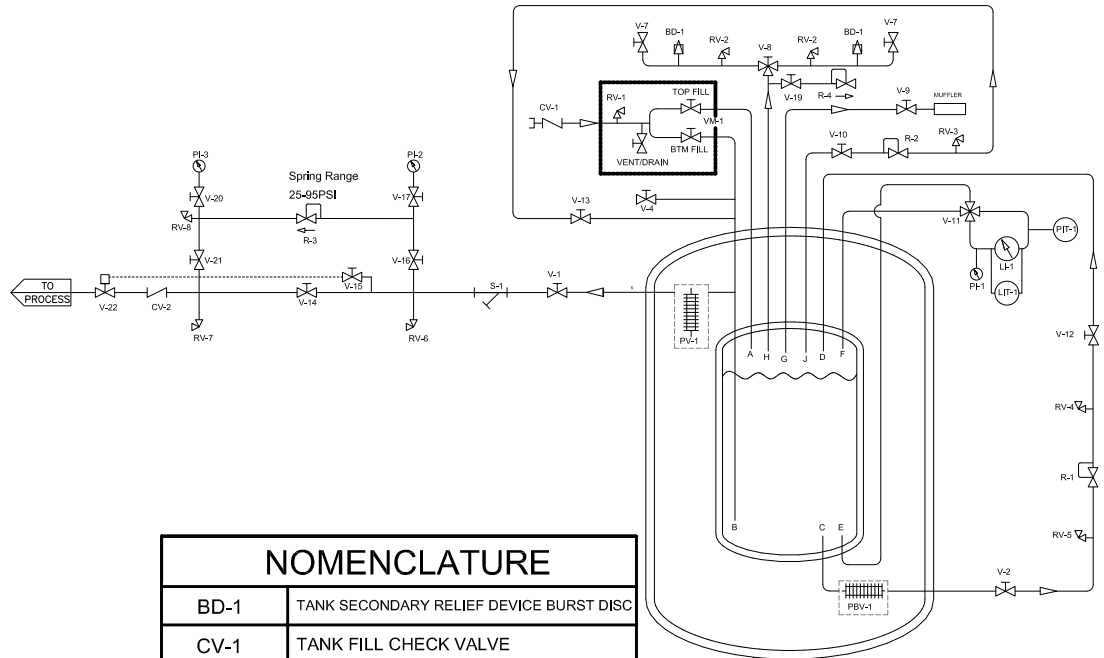
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- Local Alarm Panel pre-wired
- Digital Pressure & Level Transmitters
- High Performance Regulator for tight pressures
- Nitrogen actuated emergency shut-off valve
- Pre-wired and pre-piped for a complete and operable system

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## LN<sub>2</sub> SUPPLY SYSTEM FOR OZONE APPLICATIONS

SPECIFICATIONS		
MODEL	1000L	500L
<b>CAPACITY (Liters)</b>		
Gross	1,056	450
Net	950	420
<b>GAS DELIVERY RATE</b>		
SCFH	1,350	575
Nm <sup>3</sup> h	38.2	16.3
<b>DIMENSIONS</b>		
<b>Diameter (cylinder)</b>		
in	42	30
mm	1,067	762
<b>Height</b>		
in	89	69
mm	2,261	1,753
<b>Width</b>		
in	67	67
mm	1,702	1,702
<b>Depth</b>		
in	53	53
mm	1,347	1,347
<b>Tare Weight</b>		
lbs	1,781	1,781
kg	807	807
<b>Relief Valve Setting</b>		
psi	500	350
bar	34.5	24.1



NOMENCLATURE	
BD-1	TANK SECONDARY RELIEF DEVICE BURST DISC
CV-1	TANK FILL CHECK VALVE
LI-1	TANK LIQUID LEVEL GAUGE
PBV-1	TANK PRESSURE BUILDING VAPORIZER COIL
PI-1	TANK PRESSURE GAUGE 0-600 PSI
PV-1	TANK PROCESS VAPORIZER COIL
R-1	TANK PB REGULATOR
R-2	TANK ECONOMIZER REGULATOR
RV-1	TANK FILL ASSEMBLY RELIEF VALVE
RV-2	TANK PRIMARY RELIEF VALVE
RV-3	TANK ECON INLET RELIEF VALVE
RV-4	TANK PB OUTLET RELIEF VALVE
RV-5	TANK PB INLET RELIEF VALVE
VM-1	TOP & BOTTOM FILL MANIFOLD W/DRAIN
V-1	TANK GAS USE VALVE
V-2	TANK PRESSURE BUILD INLET ISO VALVE
V-4	TANK LIQUID WITHDRAWAL VALVE
V-7	TANK SAFETY LINE PURGE VALVE
V-8	TANK SAFETY 3-WAY DIVERTER VALVE
V-9	TANK FULL TRYCOCK / VENT VALVE
V-10	TANK ECONOMIZER VALVE
V-11	TANK GAUGE ISOLATION VALVE
V-12	TANK PRESSURE BUILD OUTLET ISO VALVE
V-13	TANK ECONOMIZER INLET ISO VALVE

FINAL LINE MANIFOLD	
S 1	FINAL LINE STRAINER
CV-2	FINAL LINE CHECK VALVE
LIT-1	TANK LIQUID LEVEL TRANSMITTER
PIT-1	TANK PRESSURE TRANSMITTER
PI-2	INLET PRESSURE GAUGE
PI-3	OUTLET PRESSURE GAUGE
R-3	FINAL LINE REGULATOR
R-4	FINAL LINE ECONOMIZER REGULATOR
RV-6	FINAL LINE RELIEF VALVE
RV-7	FINAL LINE RELIEF VALVE
RV-8	FINAL LINE RELIEF VALVE
V-14	FINAL LINE BY-PASS VALVE
V-15	ACTUATED GAS SUPPLY VALVE
V-16	INLET ISOLATION REG. VALVE
V-17	PRESS GAUGE ISOLATION VALVE
V-19	ECONOMIZER ISOLATION VALVE
V-20	PRESS. GAUGE ISOLATION VALVE
V-21	OUTLET ISOLATION REG VALVE
V-22	ACTUATED CONTROL VALVE

PIPING	
A	TANK TOP FILL
B	TANK BOTTOM FILL & LIQUID USE
C	TANK PB INLET
D	TANK PB OUTLET
E	TANK LIQUID PHASE
F	TANK VAPOR PHASE
G	TANK FULL TRYCOCK / VENT VALVE
H	TANK DUAL RELIEF
J	TANK ECONOMIZER
K	TANK GAS USE