## PURGE-N2-TEST\*\*

### NITROGEN PURGING SYSTEMS FOR THE HVAC INDUSTRY





**VISION • INNOVATION • SOLUTION** 

## PURGE-NZ-TEST\*\*

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The Purge-N<sub>2</sub>-Test is a nitrogen regulator/cylinder system, utilizing a lightweight aluminum cylinder and a "state of the art" regulator with an integrated cylinder valve. It is designed specifically for the HVAC industry, for nitrogen purging AC line sets prior to brazing and leak checking AC line sets after brazing. It offers safety, savings, convenience, and consistency over the current nitrogen purging set-up.









# PURGE-N2-TEST\*\*

The HVAC OEMs, as well as the recognized industry training authorities, specify the use of nitrogen to purge refrigeration and AC line sets prior to and during brazing. This important step is often omitted during the installation process of an HVAC system.





# PURGE-N2-TEST\*\*

The purpose of the nitrogen is to displace any oxygen in the lines and minimize the formation of oxides. As the AC unit is put into service, these oxide flakes dislodge and can become trapped in the TXV or metering orifice, leading to premature compressor failure. Manufacturers may not honor a warranty if the compressor failure is a result of improper brazing procedure.



Copper tubing brazed with nitrogen purge.



Copper tubing brazed without

nitrogen purge. Notice the black
oxide deposits.



FEATURE	BENEFIT		
Simple, quick, easy to operate flow control knob.	Saves on training time and training costs. Also saves install time.		
3 discreet nitrogen flow settings - braze, purge, leak test, plus Off.	Consistency, no wasted excess nitrogen, saves install time and gas costs.		
Lightweight, easily portable	Safety feature, less chance of injury Ergonomically safer		
Built in Carrying handle	Safety feature, also a place to hang the gauge set.		
Lightweight Aluminum cylinders	Safety, weighs 20% less than steel cylinder		
Shroud Protected regulator and pressure gauge.	Safety feature and saves cost of broken gauge replacement.		
Compact design	Easily mounts in service truck, less chance of damage, clears up valuable floor space.		
Transport carrier standard	Safety feature, Integrated Shoulder strap, handle, pockets for tools		
Industrial standard sized cylinders	Approx. 10% more nitrogen than a conventional steel cylinder.		
Industry standard fittings for both Outlet and Inlet, as a convenience.	Use current nitrogen hoses, no special adaptors needed.		
Refillable by your current gas supplier or your own simple transfill system.	No hassle refills or exchanges. No need to remove regulator to refill cylinders.		



## Designed to resolve all of today's nitrogen systems' shortcomings:

#### <u>Safety</u>

Smaller, easy to properly store during transport.

Lighter, reduces "on the job" injuries.

Ergonomic built-in handle, transport carrier leaves your hands free for climbing a ladder, etc.

#### <u>Form</u>

No exposed regulator, which is prone to damage.

High Impact shroud protected gauge, no more replacing broken gauges.

Built - in handle, easy to carry, <u>never</u> pick up a cylinder by the attached regulator!

One brass to brass connection point minimizes the potential for leaks.

#### **Function**

Simple to operate, eliminates the frustrations of a conventional regulator.

Easy to train technicians on proper use of nitrogen, no waste.

Can be conveniently refilled by contractor or distributor/wholesaler.

Consistent procedure yields consistent quality.

#### **Economics**

All of the above save money.





### **4 Position Operation:**

**OFF** – No nitrogen flow.

PRG (purge) – After the line set has been dry fitted and is ready to be brazed, remove Schrader valve cores from both lines, connect nitrogen hose to "vapor" line via Schrader valve, open nitrogen cylinder valve, and set the Flow Control knob to PRG to purge the lines of oxygen. Nitrogen is now flowing at 20-30 cubic feet per hour.

Purge Time for 3/8" Liquid / 3/4" Vapor Line Sets		Purge Time for 3/8" Liquid / 7/8" Vapor Line Sets		Purge Time for 3/8" Liquid / 1.25" Vapor Line Sets	
Line Set Length (feet)	Purge (PRG) Time (seconds)	Line Set Length (feet)	Purge (PRG) Time (seconds)	Line Set Length (feet)	Purge (PRG) Time (seconds)
10	7	10	9	10	17
15	10	15	13	15	25
20	14	20	18	20	33
25	17	25	22	25	42
30	21	30	27	30	50
35	24	35	31	35	59
40	28	40	36	40	67
45	31	45	40	45	75



BRZ (braze) – Once the lines are purged, turn the Flow Control knob to BRZ. Nitrogen is now flowing at 2-3 cubic feet per hour. Braze all joints while nitrogen is flowing.

TST (test) – After all the joints have been brazed, replace the Schrader valve core in the "liquid" line to seal the line, turn the Flow Control knob to the TST position. The line set will pressurize to 160 PSI. Check all brazed joints for leaks using an approved "leak check" solution or other appropriate test method.

Note: Other methods may be used to detect leaks, i.e., pressure gauge decay or vacuum decay test procedures.



### The Purge-N2-Test Product Portfolio



VN-122 shown **22 C.f. 12 lbs. filled** 



VN-143 shown

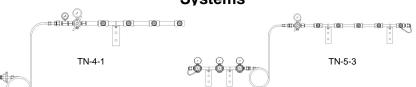
43 c.f. 22 lbs filled



VN-102 VN-101 VN-103

Head Only 2.8 lbs.

### Transfill Systems





## Designed to resolve all of today's nitrogen systems' shortcoming:



OR



No more bulky cylinders, no more clumsy regulators, no more broken regulator gauges, no more regulator repairs, no more leaking connections, no more wasted nitrogen. The Purge-N<sub>2</sub>-Test saves you money every time you use it.

Safer to use, Smaller, Lighter, More Convenient, Easier to use, Ergonomic handle and dials, Fully Protected regulator.....all for about the same initial investment.



Purge-N2-Test

For More Information Contact: Western Enterprises

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