

**HIGH PURITY SELF GENERATING NITROGEN  
SERVICE CART(HP-SGNSC), DIESEL ENGINE DRIVEN  
P/N: 130009-100  
NSN: 3655-01-621-3426**



**HYDRAULICS INTERNATIONAL, INC.**

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# HIGH PURITY SELF GENERATING NITROGEN SERVICING CART (HPSGNSC) Type I, P/N 130009-100, NSN: 3655-01-621-3426

This Nitrogen Servicing Cart is a self-contained, enclosed, four wheel, towable, internal combustion engine, trailer mounted cart, designed to produce gaseous Nitrogen at a flow of 30 Standard Cubic Feet per Minute (SCFM), at purity of 99.5% or better, and a pressure of 5,000 Pounds per Square Inch Gauge (psig) to the flight line and the maintenance shops to support multiple airframes. The nitrogen servicing cart can be used to perform the following functions:

- The low pressure side of the nitrogen cart provides a source of nitrogen at controlled pressures of 0-400 PSI to service aircraft tires or other components.
- The high pressure side of the nitrogen cart provides a source of nitrogen at controlled pressures of 0-5000 PSI to service aircraft high pressure nitrogen system and components.
- Fill up on-board storage bottles with 5,000 PSIG pure 99.5% nitrogen or better in less than 45 minutes at ambient temperature.

## Features:

- Automated PLC controlled nitrogen generation and filling with minimum operator interaction limited to "ON" and "OFF" operation.
- Sophisticated automatic and continuous nitrogen purity control and calibration with on-board purity analyzer
- Full operation and maintenance diagnostic via Human Machine Interface (HMI) touch screen with fault logs and troubleshooting aid.
- Unlike any other nitrogen generators in the market, HII 100% Oil-less feed and high pressure air compressors eliminate the need for oil separators, as a result extending the life of the nitrogen separation membranes, eliminating oil filter change, maintenance resulting in reduction of the overall life cycle cost of the HPSGNSC.

## Leading Particulars

ITEM	CHARACTERISTICS
<b>Overall Dimensions:</b>	
Cubic .....	355 cu. ft. (10.05 cu. meters)
Length.....	104 in (2.641m)
Width .....	78 in (1.981 m)
Height .....	75 in (1.905 m)
Weight (Dry).....	App. 6,200 lbs (2,500 kg)
<b>Operating Range:</b>	
Ambient temperature range .....	-40°C to +60C (-40°F to +140°F)
Altitude range.....	Sea level to 6000 ft.
Relative humidity .....	40% RH at 140°F
Storage .....	-65°F to +160°F
Purity .....	99.5% N <sub>2</sub> (~.5%O <sub>2</sub> ); H/c <10ppm by volume
Flow Rate.....	30 scfm continuous delivery of Nitrogen at 99.5% purity
Quality Specification .....	A-A-59503 (Type 1 -gaseous, oil-free)
<b>Powered by:</b>	
Engine .....	Cummins QSB4.5 diesel engine, 165 HP@2000 rpm
Fuel .....	DF-1, DF-2, JP-4, JP-5, JP-8, or Jet A
Fuel Tanks Capacity .....	47 gallons (23.5 gallons/tank)
<b>Filtration After Membrane:</b>	
Moisture Content .....	0.01 micron; <.0.5% N <sub>2</sub> ; ≤26 ppm by volume; 0.003 ppm with oil vapour
Nitrogen Receivers capacity .....	Total 950 scf @5000 psi and 99.5% purity
<b>Pressure Outlet Available:</b>	
Low Pressure .....	0-400 psig
High Pressure.....	400-5000 psig
<b>Gas Cylinder Spec:</b>	
Specification .....	ISO 9809-2:2000, DOT 3AA Exempt
<b>Accessories:</b>	
High pressure accessory hose.....	-6 size, 37° flare, 50 feet, rated for 4800 psi
Low pressure accessory hose .....	-4 size, 37° flare, 30 feet, rated for 5800 psi
Charging port.....	Swagelok fitting, o-ring face seal VCO, size ¼
<b>Mobility:</b>	20 mph max towing speed
<b>Transportation:</b>	8 tie down rings, 2 side forklift pockets



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**HIGH PURITY SELF GENERATING NITROGEN  
SERVICE CART(HP-SGNSC), ELECTRIC DRIVEN  
P/N: 130010-100  
NSN: 3655-01-621-3781**



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# HIGH PURITY SELF GENERATING NITROGEN SERVICING CART (HPSGNSC) Type II, P/N 130010-100, NSN: 3655-01-621-3781-RN

This Nitrogen Servicing Cart is a self-contained, enclosed, skid mount, electric driven designed to produce gaseous Nitrogen at a flow of 30 Standard Cubic Feet per Minute (SCFM), at purity of 99.5% or better, and a pressure of 5,000 Pounds per Square Inch Gauge (psig) to the flight line and the maintenance shops to support multiple airframes. The nitrogen servicing cart can be used to perform the following functions:

- The low pressure side of the nitrogen cart provides a source of Nitrogen at controlled pressures of 0-400 PSI to service aircraft tires or other components.
- The high pressure side of the nitrogen cart provides a source of Nitrogen at controlled pressures of 0-5000 PSI to service aircraft high pressure nitrogen system and components.
- Fill up on-board storage bottles with 5,000 PSIG pure 99.5% Nitrogen or better in less than 45 minutes at ambient temperature.

## Features:

- Automated PLC controlled Nitrogen generation and filling with minimum operator interaction limited to "ON" and "OFF" operation.
- Sophisticated automatic and continuous Nitrogen purity control and calibration with on-board purity analyzer
- Full operation and maintenance diagnostic via Human Machine Interface (HMI) touch screen with fault logs and troubleshooting aid.
- Unlike any other Nitrogen generators in the market, HII 100% Oil-less feed and high pressure air compressors eliminate the need for oil separators, as a result extending the life of the Nitrogen separation membranes, eliminating oil filter change, maintenance resulting in reduction of the overall life cycle cost of the HPSGNSC.

## Leading Particulars

ITEM	CHARACTERISTICS
<b>Overall Dimensions:</b>	
Cubic .....	356.77 cu. ft. (10.102 cu. meters)
Length.....	104 in (2.641m)
Width .....	78 in (1.981 m)
Height .....	76 in (1.93 m)
Weight (Dry).....	App. 7,300 lbs (3,311 kg)
<b>Operating Range:</b>	
Ambient temperature range .....	-40°C to +60°C (-40°F to +140°F)
Altitude range.....	Sea level to 6000 ft.
Relative humidity .....	40% RH at 140°F
Storage .....	-65°F to +160°F
Purity .....	99.5% N <sub>2</sub> (~.5%O <sub>2</sub> ); H/c <10ppm by volume
Flow Rate.....	30 scfm continuous delivery of Nitrogen at 99.5% purity
Quality Specification .....	A-A-59503 (Type 1 -gaseous, oil-free)
<b>Powered by:</b>	
Electric Motor.....	Baldor Premium Efficiency Motor, 150 HP@1800 rpm, 460/380 VAC, 3 Phase, 60/50 Hz
<b>Filtration After Membrane:</b>	
Moisture Content .....	0.01 micron; <0.5% N <sub>2</sub> ; ≤26 ppm by volume; 0.003 ppm with oil vapour
Nitrogen Receivers capacity .....	Total 912 scf @5000 psi and 99.5% purity
<b>Pressure Outlet Available:</b>	
Low Pressure .....	0-400 psig
High Pressure.....	400-5000 psig
<b>Gas Cylinder Spec:</b>	
Specification .....	ISO 9809-2:2000, DOT 3AA Exempt
<b>Accessories:</b>	
High pressure accessory hose.....	-4 size, 37° flare, 50 feet, rated for 5800 psi
Low pressure accessory hose .....	-4 size, 37° flare, 50 feet, rated for 5800 psi
Charging port.....	Swagelok fitting, o-ring face seal VCO, size ¼
<b>Transportation:</b>	8 tie down rings, 2 side forklift pockets



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