

MMS-5430 MODIFIED MAINTENANCE STAND

Lightweight corrosion resistant aluminum maintenance platform with removable guard rails, rubber bumpers and commercial grade 8" lockable castors. Model: MMS-5430

OSHA 1910D compliant
Basic dimensions:
Length: 90" Width: 40"
Height: range from 30" to 54"



MP-F1621 MOBILE MAINTENANCE PLATFORM

MP-F1621 MODULES

The Aluminum Cvi International F-16 Maintenance Platform Set includes:

- | | | | |
|----------|-------------------------------------|----------|--------------------------------------|
| MP-1601L | Left Side Nose Fuselage Stand | MP-1601R | Right Side Nose Fuselage Stand |
| MP-3601L | Left Side Vertical Stabilizer Stand | MP-3601R | Right Side Vertical Stabilizer Stand |



Cvi JACKS SIDEWINDER AND JUNIOR JACKS

Cvi Jacks are a proprietary stability system utilizing aerospace grade technology. The Jacks have a variable stroke of 12" - 30" and are customizable- with or without casters and have a variety of mounting options.



Cvi



Global Challenges. Innovative Solutions.

20680 Carmen Loop Suite #101 | Bend, OR 97702
Tel: (541) 205-0195 Fax: (541) 639-4633
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DUNS: 049464209 CAGE: 59672

LINE CARD

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SNG-II STATIONARY NITROGEN GENERATOR

The CvI SNG-II Series of Stationary Nitrogen Generators provide a "turn-key" solution to providing high pressure, high purity inert gas. Multiple configurations available.

Continuous Output: Purity 99.5%
Flow: 12 to 25 scfm @ 5000-6000 psig
Operating Environment: 32F - 114F (0C - 45C)



Reliable and cost sensitive alternative to bulky and expensive liquid nitrogen options.

MNG MOBILE NITROGEN GENERATOR

Diesel powered mobile nitrogen generator.
nitrogen purity: 97% minimum.
Inert gas continuous output: 10 scfm @ 4000 psig
Operating environment: -51°C (-60°F) to +49°C (+120°F)
P/N: MNG-2A/SP-7A



MANCS MOBILE AIR & NITROGEN CHARGING STATION

Diesel powered mobile air and nitrogen generator.
nitrogen purity: 97-98%
Inert gas continuous output: 4-6 scfm @ 5000 psig
Operating environment: -51°C (-60°F) to +49°C (+120°F)
P/N: 702000-D



NITROGEN CART NITROGEN DELIVERY CART

Cv International Nitrogen Delivery and Inerting Cart. 3500 psi cylinders provide 2100 cu. ft. of nitrogen. Can boost service pressure up to 5000 psi. *Inerting optional
P/N: 47D00528-1



J10 MAINTENANCE PLATFORM

Cv International Maintenance Platform
Platform height: 36 to 84 inches



J11 MAINTENANCE PLATFORM

Cv International Maintenance Platform
Platform Height: 48.5 to 156 inches

NBSS-3, NBK-4, NBK-5 NITROGEN BACKPACK SERVICING SYSTEM

Cv International Nitrogen Backpack Servicing System High and low pressure with harness and transport case. Nitrogen servicing for aviation, oil & gas and mining industries.
P/N: 410700-3



CFK-1 NITROGEN CONTAINMENT FILL KIT

Cv International Nitrogen Containment Fill Kit offers a solution to safely fill 5000 psi nitrogen cylinders
P/N: 410800



FCS-3001 FINNED CRYOGENIC SAMPLER

Cv International Finned Cryogenic Sampler takes representative samples of liquid cryogenics such as LO₂, LN₂ and Argon
P/N: 602001





- Transportable/Deployable Stands.
- Engine Overhaul Products.
- Modular, COTS Maintenance Stands for specific aircraft that can be purchased incrementally by section of aircraft.
- Easily purchased by calling (866) 330-4382.
- Understanding and experience with Government contracting and Federal Acquisition Regulations (FAR).
- Over 40 years of aviation maintenance experience.



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email

Sales/Administration: sales@cvintl.com



CvINTERNATIONAL

Global Challenges. Innovative Solutions.



AEROSPACE GROUND SUPPORT PLATFORMS

Cv International

Specialists in Commercial Off The Shelf and Mil-Spec Ground Support Equipment for rotary and fixed wing aircraft . . . with product development focused upon smaller, lighter, deployable, multi-functional equipment design.

- Transportable/Deployable Maintenance Stands.
- Modular Aircraft Maintenance Systems (MAMS).
- Custom Maintenance Solutions.

www.cvintl.com

AEROSPACE GROUND SUPPORT SOLUTIONS



TRANSPORTABLE/DEPLOYABLE MAINTENANCE STANDS:

Designed, tested and manufactured to the most demanding specifications to support the worlds most advanced weapons system, the Lockheed Martin F-35. The Cv International J10 & J11 mobile & deployable access stands are the cutting edge of mobile military access platforms, for the first time meeting and exceeding OSHA & AFOSH load factors of safety.

J10 MAINTENANCE PLATFORM

Cv International Maintenance Platform
Platform height: 36 to 84 inches



J11 MAINTENANCE PLATFORM

Cv International Maintenance Platform
Platform Height: 48.5 to 156 inches



AIRCRAFT MAINTENANCE STANDS

Cvi is a Leading Manufacturer of Aircraft Maintenance Platforms & Dock Stands.

Custom Lightweight (Aluminum & Steel) Modular Stands for Fixed Wing/Rotary Aircraft Maintenance



American Airlines Tail Dock



Alaska, ANG C-130 Full Phase



Eglin AFB, F-35 Maintenance Platform

MODULAR AIRCRAFT MAINTENANCE SYSTEMS (MAMS)

Quality and Strength You Can Trust: On the flight line and in the maintenance bays, we provide the modularity you need with the safety standards you must have.

Cvi: scalable choices for all your maintenance requirements

- Specific aircraft systems.
- Purchased by section of aircraft.
- Designed for specific aircraft and maintenance facility specifications.
- The MAMS is completely modular in design and can stand alone or be integrated into a complete system.
- Components can be added to configure the system for various aircraft types for use as a temporary or fixed system.

CUSTOM MAINTENANCE SOLUTIONS

Quality and Strength You Can Trust: A unique solution that is rigorously engineered and cost efficient to meet specific requirements; backed by over 40 years of experience.

Cvi: Supplier of choice for All MRO Requirements

- Designed and manufactured to exact maintenance requirements and specifications.
- Used primarily as a fixed system for Depot-level maintenance.
- Special Systems use a combination of aluminum and steel and can be designed for fixed or adjustable heights.



CV INTERNATIONAL





CV INTERNATIONAL

CRYOGENIC SAMPLER

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

FCS 3001

fresh air

Breathe easy knowing the Cvi Finned Cryogenic Sampler will take representative samples of liquid cryogenics such as LOX, LN₂, and Argon and convert them to a high pressure gas. A form suitable for both storage and transport for infra-red spectroscopic analysis.



REFER TO T.O. 3303-10-80-1 FOR OPERATIONS, MAINTENANCE AND ILLUSTRATED PARTS LIST.

SERIAL NO. 0878
 CONTRACT NO. GS07F014DA
 Cvi INTERNATIONAL, INC.
 FINNED
 CRYOGENIC SAMPLER SYSTEM
 MAX WORKING PRESSURE 1800 PSI
 MFG CODE 39672
 PART NO. 60210-D
 NSN 3655-01-600-3170
 US



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The Finned Double-Cup Sampler - This all stainless steel, machined and welded assembly contains a threaded double cup, a Burst Plug providing overpressure protection and a Charging Valve to trap the liquid sample once the system is cooled down. The finned design of this sampler provides improved vaporization (heat transfer) characteristics so as to enable 10-12 minute average sample time.

Sample Cylinder Assembly - A one liter stainless steel, USA manufactured, TPED-rated, 1800 psig gas cylinder with a special Sample Cylinder Valve assembly. The sample valve is a stainless steel raising stem plug type providing a bubble-tight, long time seal at storage pressures of 1600-1800 psig and a leak proof stem seal operation for the critical, cryogenic vaporization mode.



Storage and Handling Case - Is a unique aluminum case designed to hold and position the Sampler and Cylinder while sampling and vaporizing as well as securing the sampler for storing and transporting. Included in the case is a replaceable insulation liner which aids in rapid Sampler cool down. Optional transport case available for entire sampler and/or for cylinder with valve assembly.

FCS 3001

ACCESSORIES

Standard accessories are included with the FCS Sampler System. These include: two 6-foot stainless steel, braided, flexible hose assemblies, each having a 1/2" stainless steel female AN nut hose ends. Necessary ordnance couplings are furnished to permit tank hookup. One sample cylinder interconnect port adaptor. Spares kit with assortment of face seals and silicone O-rings for routine valve or sampler maintenance and a full mil-spec Technical Operating manual. All hardware to US standards and no special tools required.



MODEL FCS 3001

MODEL: FCS 3001

Part Number: 602001

NSN: 6695-01-600-4986 RN



FCS Specifications

Width: 136 inches wide

Depth: 150 inches deep

Height: 16.5 inches high

Weight: 40 lbs.



Sample Cylinder Specifications

Weight: 11 pounds

Cyl. Capacity: 1.72 cubic feet

Cyl. Pressure: 1800 psig

Part Number: 600210-D

NSN: 3655-01-600-3170



SNG-II STATIONARY NITROGEN GENERATOR

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

model
SNG-II

STATIONARY NITROGEN GENERATOR

HIGH QUALITY AND HIGH
PRESSURE NITROGEN FOR
MILITARY, COMMERCIAL AND
INDUSTRIAL APPLICATIONS.



The SNG-II is a fully integrated, electronically driven, turn-key nitrogen generating system capable of producing nitrogen gas up to 99.9% purity at 8 to 25 scfm. Service pressures provided to 5000 psi with an option to 6000 psi.



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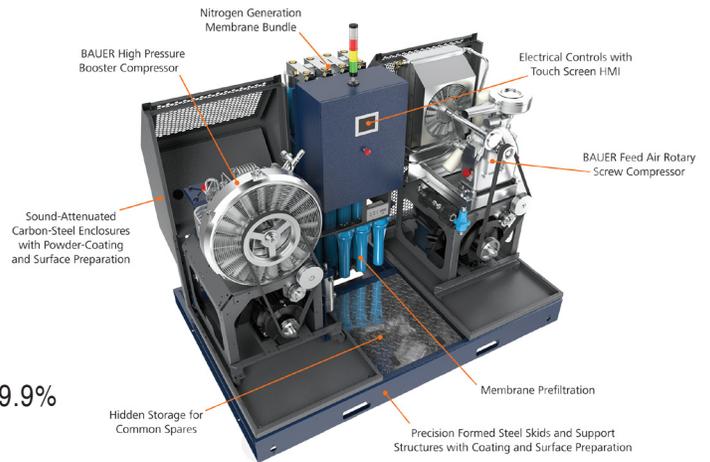
SPECIAL FEATURES:

- On-line Oxygen Analyzer is incorporated for continuous monitoring the oxygen content to determine nitrogen purity.
- Replaces liquid nitrogen tanks, and costly cylinder rentals.
- A UL® labeled control center with PLC controller and operator-friendly touch screen interface allowing the operator to control the operation of the system and monitor all phases of system status. Through this interface the operator is also able to vary the oxygen content of the product gas in order to optimize product flow and purity for a wide variety of applications.
- No special foundations are required. Simply forklift in place onto solid floor and connect to electrical service and shop gas distribution system.



OPTIONS:

- Storage - Stand-Alone high pressure ASME-certified or DOT-approved cylinders and multiple-cylinder rack systems. Systems are available with nitrogen distribution panels for regulating downstream applications.
- Electrical - SNG-II systems are designed for running on a variety of electric power. Although the data listed herein is for standard 3 Phase 230 or 460 VAC/60Hz, operation can also accept 208 VAC and 50 Hz sources when required.



SYSTEM SPECIFICATIONS:

Continuous Output: Purity up to 99.9%

Gas Quality: -70° C Atmospheric Dew Point

Operating Environment: 32° F - 114° F (0° C - 45° C)

Model No.	NSN Stock No.	Power @ 3 Phase/60 Hz		Flow (scfm)	Max Psi	Dimensions	Weight/Lbs
SNGII-20410	3655-01-505-7602	230 VAC	82.5 FLA	12.0	5000	85L x 59W x 74H	2800
SNGII-20410	3655-01-505-7610	460 VAC	42.3 FLA	12.0	5000	85L x 59W x 74H	2800
SNGII-30615	3655-01-505-7637	230 VAC	121.8 FLA	13.0	5000	96L x 64W x 84H	3700
SNGII-30615	3655-01-505-7639	460 VAC	61.5 FLA	13.0	5000	96L x 64W x 84H	3700
SNGII-40815	3655-01-505-7630	230 VAC	158 FLA	25.0	5000	96L x 64W x 84H	3800
SNGII-40815	3655-01-505-7616	460 VAC	79 FLA	25.0	5000	96L x 64W x 84H	3800
SNGII-40820	3655-01-505-7652	230 VAC	166 FLA	25.0	6000	96L x 64W x 84H	3800
SNGII-40820	3655-01-505-7658	460 VAC	83 FLA	25.0	6000	96L x 64W x 84H	3800

UNIT SPECIFICATION • MNG-2A/SP-7A

PERFORMANCE

- Inert gas purity: 97 to 99%
- Inert gas continuous output: 8-10 scfm @ 4000 psig.
- Inert gas quality: -55°C (-67°F) atmospheric dew point.
- Inert gas composition: Nitrogen and trace inert gases: Neon, Argon, and Helium.
- Operating environment: -51°C (-60°F) to +49°C (+120°F)

STANDARD FEATURES

DRIVE

- Diesel engine driven.
- 10 U.S. Gallon capacity aluminum diesel fuel tank.
- OPTIMA gel 800U 12VDC battery.
- Applicable fuels: JP5, DF-1, DF-2, DF-A, and JET A and JET A-1.

FEED AIR COMPRESSOR

- Bauer Compressors, Inc. Model NK60 rotary screw compressor.
- Maintenance indicators on Air/Oil separator and oil filter.
- Heavy-duty inlet filter and maintenance indicator.
- Low-pressure filter system with automatic drains.
- Oxygen Analyzer for Nitrogen quality.

MEMBRANE AIR SEPARATOR MODULE

- PERMEA, Inc. Model PA4030 air separator membranes. (Qty 3).

HIGH PRESSURE BOOSTER COMPRESSOR

- Bauer Compressors, Inc. Model BK 12.2II reciprocating booster compressor.
- High pressure filter and solenoid activated automatic condensate drain system.

INERT GAS SERVICE

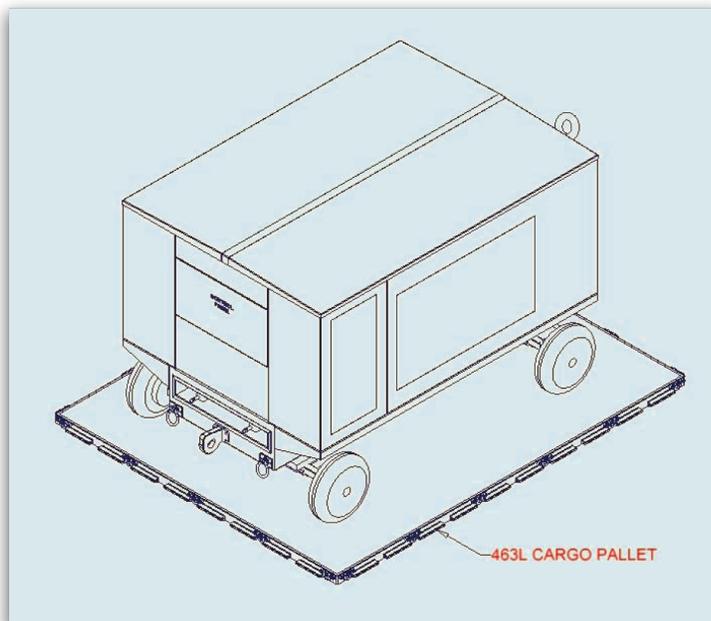
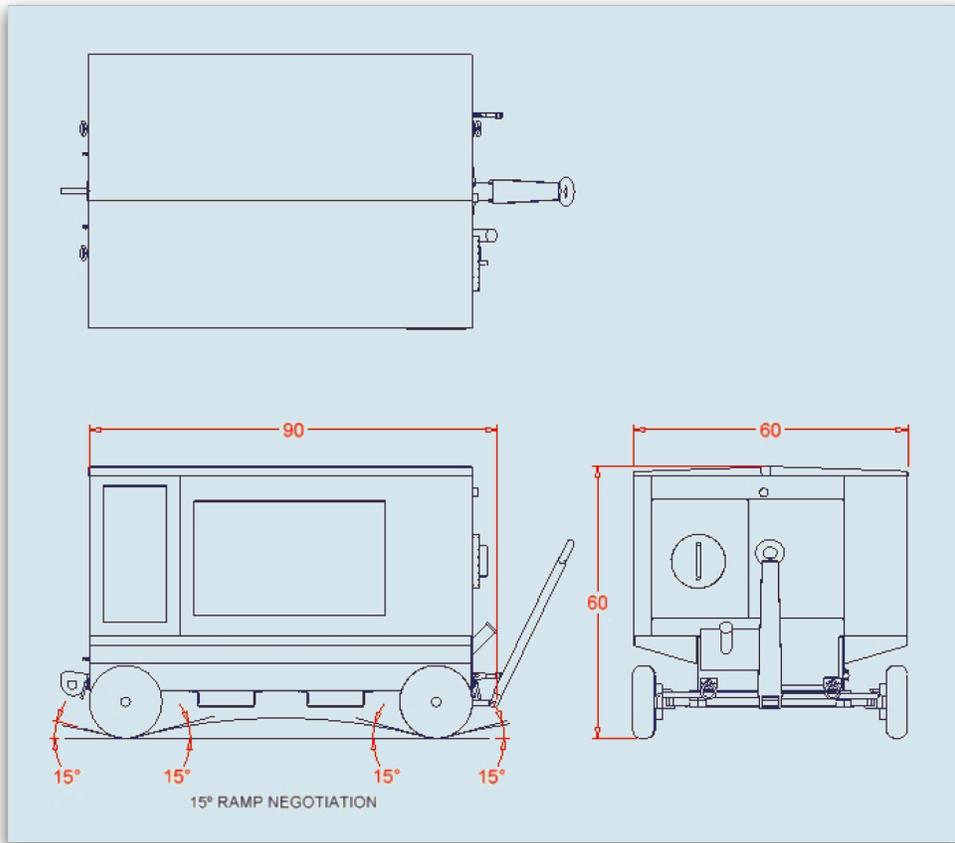
- Final storage pressure: 4000 psig.
- Standard inert gas storage capacity (nominal at standard conditions): 460 cu. ft. to 920 cu. ft. @ 4000 psig.
- Low-pressure nitrogen hose reel with 50 ft of servicing hose for servicing pressures from 0 to 500 psig.
- High-pressure nitrogen hose reel with 50 ft of servicing hose for servicing pressures from 0 to 4000 psig.

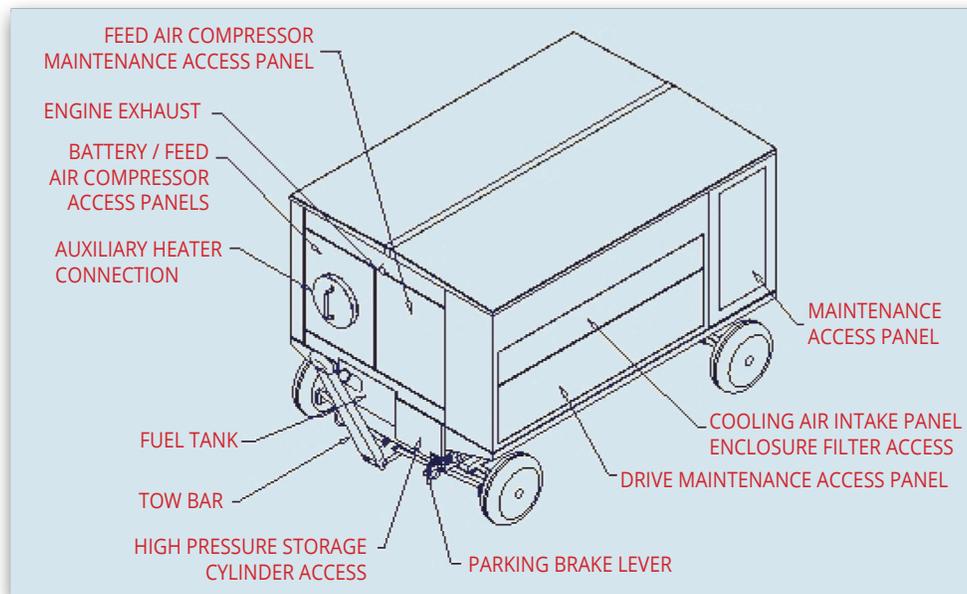
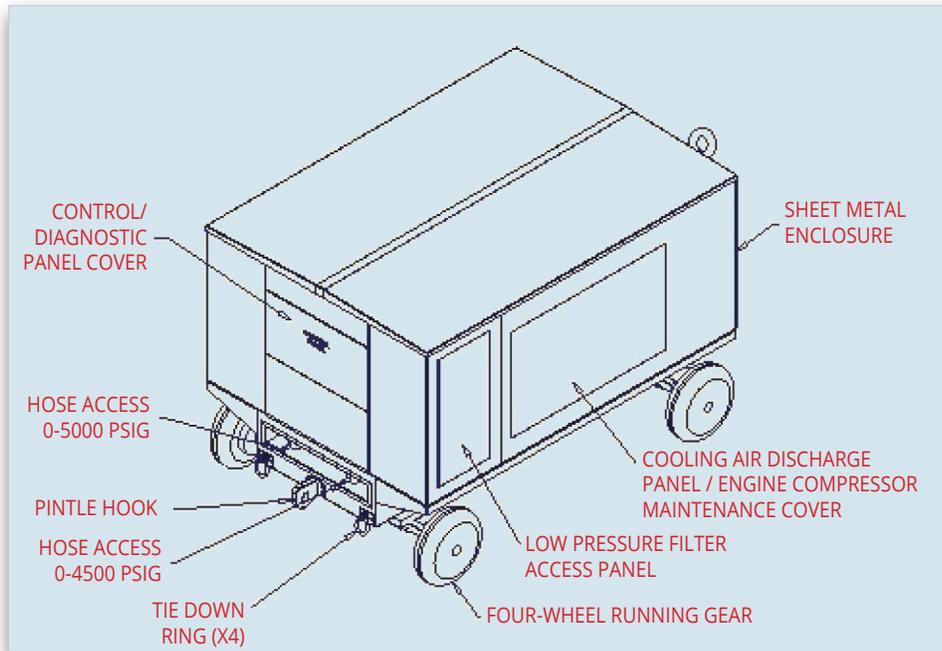
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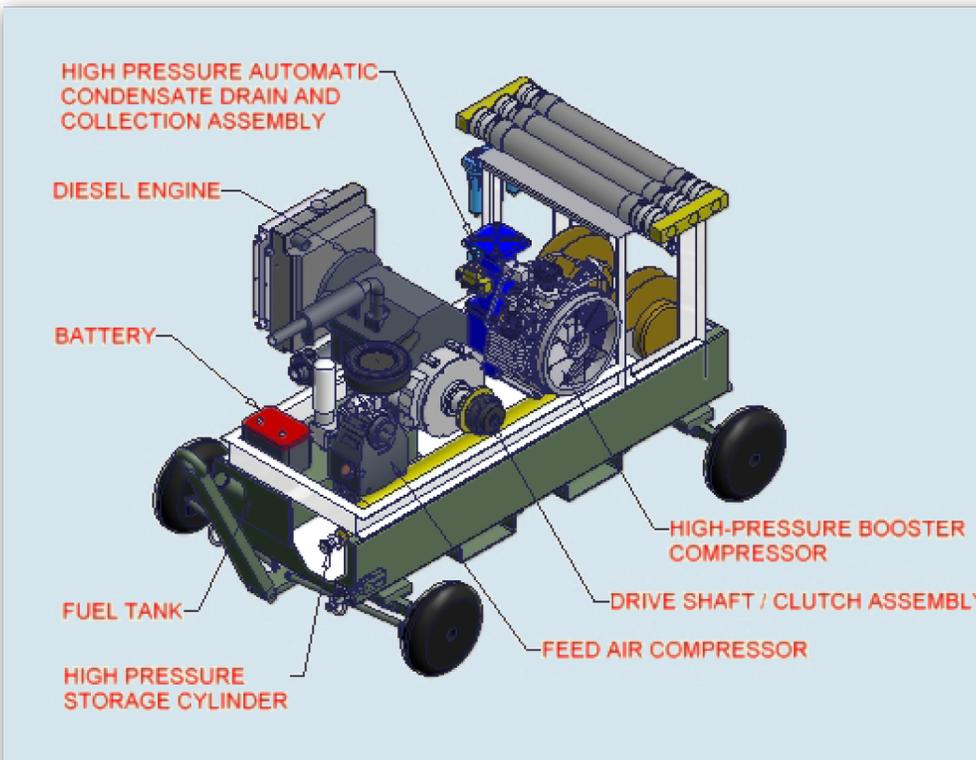
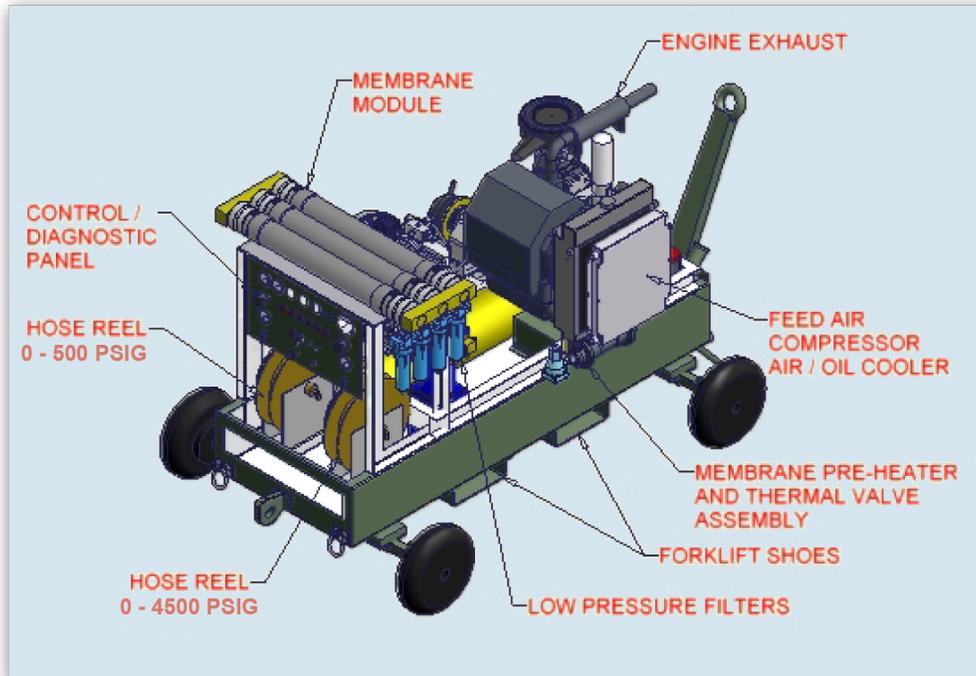
- Weather resistant enclosure with filters fitted on cooling air inlet.
- Four-wheel 15-MPH running gear, tow bar with lunette eye, handbrake and pintle hook on rear of the frame.
- Forklift shoes and main frame tie down rings.
- A single, operator control panel / diagnostic panel including but not limited to the following equipment:
 - High Pressure nitrogen receiver pressure gauge
 - Low and high pressure compressor gauges
 - Low and high pressure nitrogen servicing hose controls
 - Engine start controls including ignition switch, hour meter, tachometer and glow indicator
 - Fuel level gauge
 - Voltmeter
 - Panel lights
 - Nitrogen system temperature switch/gauges
 - Engine oil and temperature gauges
 - Inert gas sample port
- Enclosure fabricated from sheet metal including a combination of hinged and fixed panels for cooling air, storage access and maintenance panels.
- Length: 90" (tow bar up and stowed, not including pintle hook), Width: 60", Height: 60".
- Weight: approximately 3200 lbs.



AVAILABLE ON GSA CONTRACT NUMBER: **GS07F014DA**







MODEL MANCS-1

Mobile Air/Nitrogen Charging Station

- **A Multifunctional, Diesel Powered On-site Mobile Nitrogen Generator Air and Ground Transportable to Operational Areas**
- **Furnished “Ready for Use” with High and Low Pressure Servicing Kits Transported to “Point of Need” with Backpack Cylinder and Carrying Harness Accessories**



MANCS-1
Part Number: 702000-D
NSN: 3655-01-463-8067



High Pressure Nitrogen Portable to “Point of Need” - 4500 psig Lightweight Backpack Cylinder - Part Number: 410780 and Harness - Part Number: 410735-1



LPSK-1A, Low Pressure Service Kit with Controls, Service Hose, Tire & Blade Fill Chucks - Part Number: 410717



HPSK-1A, High Pressure Service Kit with Controls, Service Hose & High Pressure Service Chuck - Part Number: 410727

The MANCS Manufactures Gaseous Nitrogen on site . .

- Charges 4500 psig lightweight backpack cylinders for air and man transport to point of need or carrying in the air transportable or tarmac portable NDSK Nitrogen Deployment Sustainment Kit
- Supplies 0-5000 psig Nitrogen at regulated pressure for direct service to cylinders and cylinder carts.
- Supplies compressed air at 0-125 psig for use with air tools and other pneumatic services.

The MANCS is Small and Lightweight . .

- Half the size of current Mobile Nitrogen Generators
- Air and surface vehicle transportable.
- Can be sling and fork lifted.

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

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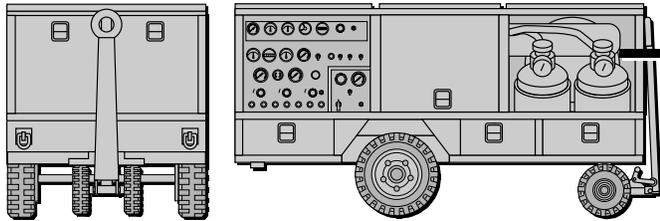
CvINTERNATIONAL

MODEL-MANCS-1

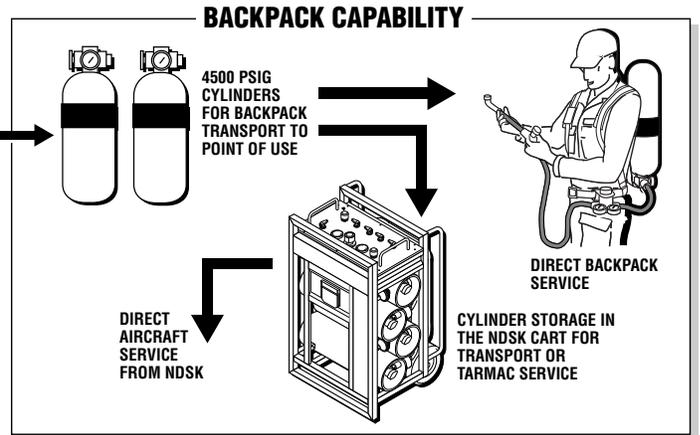
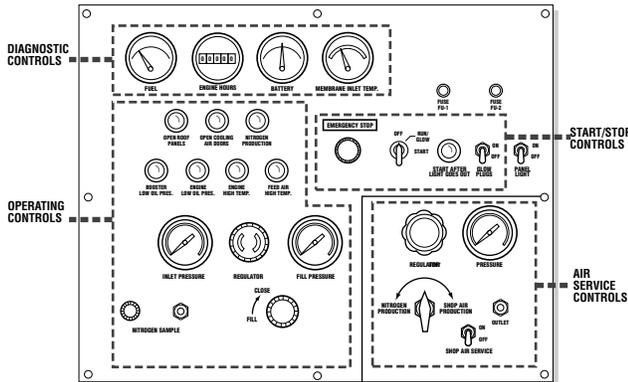
MOBILE AIR/NITROGEN CHARGING STATION

MULTI-FUNCTIONAL AGSE

The CVI MANCS-1: P/N 702000-D
NSN 3655-01-463-8067



OPERATIONAL SIMPLICITY



Nitrogen Servicing Components Included:

- **All Nitrogen Connections** - are Quick Disconnect style.
- **4500 psig Backpack Cylinder** - CYL-74, Part Number: 410780 (NSN 8120-01-572-6397), lightweight 12 lbs. dry 28 lbs. filled at 88 scf.
- **Backpack Cylinder Harness** - HRN-3A, Part Number: 410735-1 (NSN 3655-01-572-6308), carries cylinder plus attachments for LPSK and HPSK Nitrogen Servicing Kits.
- **Low Pressure Servicing Kit** - LPSK-1A, Part Number: 410717 (NSN 3555-01-572-6345), with high pressure hose connecting Service Controls to Backpack Cylinder and a flexible 10 foot low pressure hose from the Service Controls to Tire and Rotor Blade Fill service chucks.
- **High Pressure Servicing Kit** - HPSK-1A, Part Number: 410727 (NSN 3655-01-572-6314), with high pressure hoses connecting Service Controls to Backpack Cylinder and to high pressure Service Chuck.
- **CGA-680 to QDC Adapter** - CGA-QD, Part Number: 410810 (NSN 8140-01-572-6392), enables use of earlier Backpack Cylinders using CGA-680 Connectors.
- **QDC to CGA-680 Adapter** - QD-CGA, Part Number: 410787 (NSN 8120-01-572-6405), enables use of earlier Pressure Controls using CGA-680 Connectors.
- **Reusable Transport Case** - RTC-1, Part Number; 410740 (NSN 8140-01-572-6387), a transport and storage case with molded foam inserts for all accessory parts and technical manual.
- **MANCS-1 Spare Parts Kit** - Part Number: 0181, for start-up and periodic maintenance.

PERFORMANCE (Standard Day Conditions)

Nitrogen gas production rate (nominal) 4-6 scfm
 Service Pressure (Nitrogen) regulated 0-5000 psig
 Nitrogen Purity (% Oxygen free) standard 97-98%
 Service Pressure (Compressed Air) regulated 0-150 psig
 Diesel Engine/Multi-fuel/Liq. Cooled Meets CARB-ULGE

OPTIONS

Percent Oxygen Analyzer Portable meter for analyzing
 Service Hoses High and low pressure hoses with QDs and check valve
 Inverter 110 VAC for shop light

PHYSICAL CHARACTERISTICS – SMALL FOOTPRINT

Length 84 inches
 Width 40 inches
 Height 42 inches
 Weight 1700 lbs.
 Running Gear Solid axle with rotating hubs and steerable front gear

NITROGEN BACKPACK KIT

High Pressure Service to 4500 psig

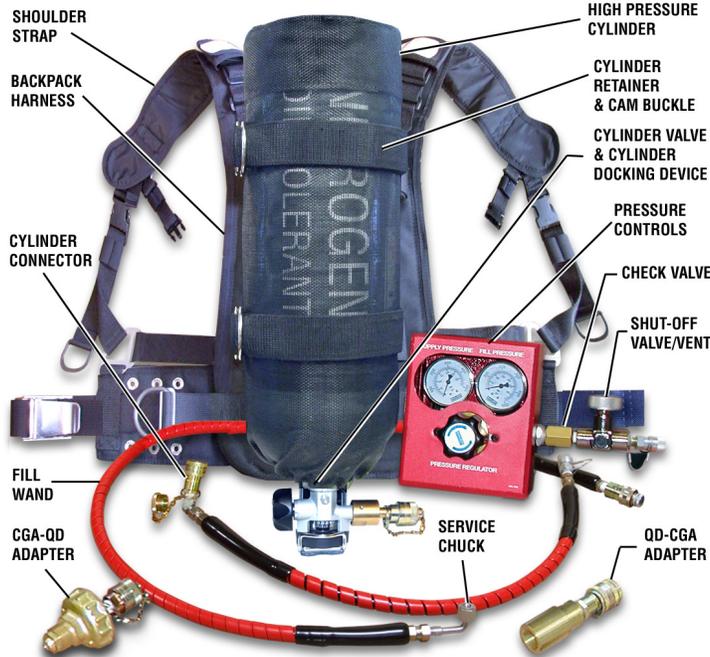


The NBK-4 is a lightweight, high pressure nitrogen gas backpack service kit with QDC connections, providing users with a more efficient method of servicing equipment requiring nitrogen gas servicing

The NBK-4 - Nitrogen Backpack Kit, P/N 410610 - is a revised version of the original NBK-1 design, featuring new redesigned HPSK-1A operator controls while providing the same lightweight aspect allowing it to be easily transported for operation in remote/advance deployment areas as well as providing daily maintenance requirements at improved/main base operations. The NBK-4 provides service personal with an efficient method of servicing equipment requiring high pressure nitrogen gas service. The lightweight Backpack is ideal for delivering a high pressure nitrogen gas cylinder (up to 4500 psig) directly to the point of need without struggling with long hose lines and requiring multiple personnel handling existing cumbersome and heavy nitrogen carts. The cylinders are the QDC version of the same high pressure nitrogen cylinders used with our NBSS and NDSK systems and easily filled with our CFK-1 (Containment Fill Kit) with a supplied source of high pressure nitrogen gas from an MNG, SNG, GANG or directly in our Cvi nitrogen generatin MANCS (Mobile Air Nitrogen Charging System).

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

High Pressure Nitrogen Backpack Kit P/N: 410610 Consists of the Following:



● **High Pressure Service Kit (HPSK-1A) P/N 410727 (NSN 3655-01-572-6314)**

The high pressure service kit contains an aluminum enclosure housing a “Supply Pressure” gauge (0-5000 psig), a high pressure “Pressure Regulator” valve (0-5000 psig) and a “Fill Pressure” gauge (0-5000 psig) along with miscellaneous internal pneumatic components. The enclosure is equipped with a snap clip to attach the kit to backpack harness belt. A 28 inch long high pressure hose is attached to the inlet side of the enclosure with a high pressure QDC connector that mates with the QDC adapter on the backpack cylinder. The outlet side of the HPSK-1A enclosure has a check valve and combination shut-off/bleed valve. Attached to the shut-off valve is a 48 inch long high pressure service hose that terminates with a high pressure service chuck for high pressure servicing.

● **CGA-680 to QDC Adapter (CGA-QD) P/N 410810 (NSN 8140-01-572-6392)**

A CGA-680 hand tight nut to Quick Disconnect adapter is provided to enable the NBK kits the use of earlier backpack cylinders P/N 410580 fitted with a CGA-680 connection.



● **QDC to CGA-680 Adapter (QD-CGA) P/N 410787 (NSN 8120-01-572-6405)**

A Quick Disconnect connector to CGA-680 adapter enabling the NBK backpack cylinders P/N 410780 the ability to connect to earlier CGA-680 components.



● **SLV-1 Cylinder Sleeve PN: 410789-1**

A cylinder sleeve, designed to aid in basic protection for the high pressure backpack cylinder. It does not provide protection from abuse, carelessness or mishandling. High pressure cylinders must never be dropped, dragged, struck against each other or other objects. High pressure backpack cylinders must be handled with extreme care at all times.



● **Backpack Cylinder Assembly (CYL-74) P/N 410780 (NSN 8120-01-572-6397)**

A lightweight aluminum vessel with carbon fiber wrap and epoxy coating, D.O.T. approved and in service with many Cvi (MANCS) Mobile Air/Nitrogen Charging Systems. Fitted with a high pressure service shut-off valve, burst disc and pressure gauge. Valve is fitted with a QDC connector for service attachment.

Length 25.5 in. Weight (empty) 13 lbs.
Diameter ... 6.9 in. Weight (filled) 20 lbs.
Cylinder Pressure 4500 psig
Cylinder Capacity 88 scf.

● **Backpack Harness Assembly (HRN-3A) P/N 410735-1 (NSN 3655-01-572-6308)**

A premium lightweight harness assembly. Has a padded back plate with heavily padded shoulder straps and a wide adjustable waist belt to handle the high pressure and low pressure service kits comfortably when attached to it.

Length 18 in Width 12 in.
Weight 6 lbs.

NITROGEN BACKPACK KIT

Low Pressure Service 0 to 150 psig



The NBK-5 is a lightweight, low pressure nitrogen gas backpack service kit with QDC connections, providing users with a more efficient method of servicing equipment requiring nitrogen gas servicing

The NBK-5 - Nitrogen Backpack Kit, P/N 410620 - is a low pressure version of the original NBK-1 design, featuring the new redesigned LPSK-1A operator controls while providing the same lightweight aspect allowing it to be easily transported for operation in remote/advance deployment areas as well as providing daily maintenance requirements at improved/main base operations. The NBK-5 provides service personal with an efficient method of servicing equipment requiring regulated low pressure nitrogen gas service. The lightweight Backpack is ideal for delivering a gas cylinder for low pressure nitrogen service (up to a maximum 150 psi) directly to the point of need without struggling with long hose lines and requiring multiple personnel handling existing cumbersome and heavy nitrogen carts. The cylinders are the same high pressure nitrogen backpack cylinders used with our NBSS and NDSK systems and easily filled with our CFK-1 (Containment Fill Kit) with a supplied source of high pressure nitrogen gas from an MNG, SNG, GANG or directly in our Cvi nitrogen generatin MANCS (Mobile Air Nitrogen Charging System).

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

Low Pressure Nitrogen Backpack Kit P/N: 410620 Consists of the Following:



- Low Pressure Service Kit (LPSK-1A) P/N 410717 (NSN 3555-01-572-6345)**
 The service kit consists of an aluminum housing containing a cylinder "Supply Pressure" gauge (0-5000 psig), a "Pressure Regulator" (0-400 psig), a "Fill Pressure" gauge (0-200 psig), a "Tire Pressure" gauge (0-200 psig). In addition, it includes a built-in bleed valve and a safety relief valve set at 150 psig. A 28 inch long hose is attached to the inlet side of the enclosure with a high pressure QDC connector that mates with the QDC adapter on the backpack cylinder. The outlet side of the kit enclosure has a 10 foot low pressure fill hose with a quick disconnect socket for attaching the low pressure fill chuck.

- CGA-680 to QDC Adapter (CGA-QD) P/N 410810 (NSN 8140-01-572-6392)**
 A CGA-680 hand tight nut to Quick Disconnect adapter is provided to enable the NBK kits the use of earlier backpack cylinders P/N 410580 fitted with a CGA-680 connection.



- Backpack Cylinder Assembly (CYL-74) P/N 410780 (NSN 8120-01-572-6397)**
 A lightweight aluminum vessel with carbon fiber wrap and epoxy coating, D.O.T. approved and in service with many Cvi (MANCS) Mobile Air/Nitrogen Charging Systems. Fitted with a high pressure service shut-off valve, burst disc and pressure gauge. Valve is fitted with a QDC connector for service attachment.
- | | | | |
|-------------------------|-----------|-----------------------|---------|
| Length | 25.5 in. | Weight (empty) | 13 lbs. |
| Diameter ... | 6.9 in. | Weight (filled) | 20 lbs. |
| Cylinder Pressure | 4500 psig | | |
| Cylinder Capacity | 88 scf. | | |

- QDC to CGA-680 Adapter (QD-CGA) P/N 410787 (NSN 8120-01-572-6405)**
 A Quick Disconnect connector to CGA-680 adapter enabling the NBK backpack cylinders P/N 410780 the ability to connect to earlier CGA-680 components.



- Backpack Harness Assembly (HRN-3A) P/N 410735-1 (NSN 3655-01-572-6308)**
 A premium lightweight harness assembly. Has a padded back plate with heavily padded shoulder straps and a wide adjustable waist belt to handle the low pressure service kits comfortably when attached to it.
- | | | | |
|--------------|--------|-------------|--------|
| Length | 18 in | Width | 12 in. |
| Weight | 6 lbs. | | |

- SLV-1 Cylinder Sleeve (SLV-1) PN: 410789-1**
 A cylinder sleeve, designed to aid in basic protection for the High Pressure backpack cylinder. It does not provide protection from abuse, carelessness or mishandling. Pressure cylinders must never be dropped, dragged, struck against each other or other objects. Backpack cylinders must be handled with extreme care at all times.



NITROGEN BACKPACK SERVICE SYSTEM

A Complete High and Low Pressure Nitrogen Servicing System . . .

- Uses lightweight high pressure man-portable backpack cylinders to transport nitrogen to the point of need.
- Cylinders can be refilled from all military mobile or stationary on-site nitrogen generators.
- All system equipment is deployable in a reusable air transport case.



NBSS - BACKPACK SERVICING AT POINT OF NEED

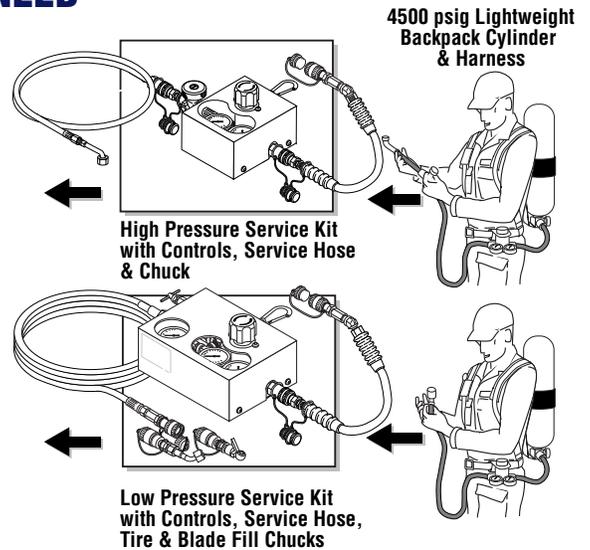
Low Pressure
Blade Fill - Selected
Aircraft



Low Pressure
Tire Fill

High Pressure
Accumulator Charging

High Pressure
Strut Charging



AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA



CvINTERNATIONAL

MODEL-NBSS-3

NITROGEN BACKPACK SERVICE SYSTEM

Model NBSS-3 P/N 410700-3

(NSN 3655-01-559-0617)

Consisting of the following key components:

- **Backpack Cylinder Assembly (CYL-74) P/N 410780**

(NSN 8120-01-572-6397)

A lightweight aluminum vessel with carbon fiber wrap and epoxy coating, D.O.T. approved and in service with many CVI (MANCS) Mobile Air/Nitrogen Charging Systems. Fitted with a high pressure service shut-off valve, burst disc and pressure gauge. Valve is fitted with a male quick disconnect fitting for service attachment.

Length 25.5 in. Weight (empty) 13 lbs.
Diameter 6.9 in. Weight (filled) 20 lbs.
Cylinder Pressure 4500 psig
Cylinder Capacity 88 scf.

- **Backpack Harness Assembly (HRN-3A) P/N 410735-1**

(NSN 3655-01-572-6308)

A premium lightweight harness assembly. Has a padded back plate with heavily padded shoulder straps and a wide adjustable waist belt to handle the high pressure and low pressure service kits comfortably when attached to it.

Length 26 in Width 12 in.
Weight 8 lbs.

- **Low Pressure Service Kit (LPSK-1A) P/N 410717**

(NSN 3555-01-572-6345)

The service kit consists of an aluminum housing containing a cylinder “Supply Pressure” gauge (0-5000 psig), a “Pressure Regulator” (0-400 psig), a “Fill Pressure” gauge (0-200 psig), a “Tire Pressure” gauge (0-200 psig). In addition, it includes a built-in bleed valve and a safety relief valve set at 150 psig. A 28 inch long high pressure hose is attached to the inlet side of the enclosure with a high pressure quick disconnect coupling that mates with the quick disconnect coupling on the backpack cylinder. The outlet side of the kit enclosure has a 10 foot low pressure fill hose with a quick disconnect socket for attaching the service adapters for low pressure servicing.

- **CGA-680 to QDC Adapter (CGA-QD) P/N 410810**

(NSN 8140-01-572-6392)

A CGA-680 hand tight nut to Quick Disconnect adapter is provided to enable the NBSS kits the use of earlier backpack cylinders P/N 410580 fitted with a CGA-680 connection.

- **QDC to CGA-680 Adapter (QD-CGA) P/N 410787**

(NSN 8120-01-572-6405)

A Quick Disconnect connector to CGA-680 adapter enabling the NBSS backpack cylinders P/N 410780 the ability to connect to earlier CGA-680 components.

- **High Pressure Service Kit (HPSK-1A) P/N 410727**

(NSN 3655-01-572-6314)

The high pressure service kit contains an aluminum enclosure housing a “Supply Pressure” gauge (0-5000 psig), a high pressure “Pressure Regulator” valve (0-5000 psig) and a “Fill Pressure” gauge (0-5000 psig) along with miscellaneous internal pneumatic components. The enclosure is equipped with a snap clip to attach the kit to backpack harness belt. A 28 inch long high pressure hose is attached to the inlet side of the enclosure and has a high pressure quick disconnect coupling on the other end to connect to the backpack cylinder’s quick disconnect. The outlet side of the HPSK-1A enclosure has a check valve and combination shut-off/bleed valve. Attached to the shut-off valve is a 48 inch long high pressure service hose that terminates with a high pressure service chuck for high pressure servicing.

- **Transport Case Assembly (RTC-1) P/N 410740**

(NSN 8140-01-572-6387)

The reusable Transport Case houses all components of the NBSS for storage, use and transport. It is made of high impact plastic and features heavy duty wheels, retractable carry handle and multiple fold-down handles.



CONTAINMENT FILL KIT

High Pressure Fill Service to 4500 psig

A completely contained high pressure filling station providing users with a safer and efficient method of servicing high pressure nitrogen gas backpack cylinders.



With the advent and widely adopted use of portable backpack cylinders for servicing nitrogen required equipment, a developing need for a convenient and safe method of filling those cylinders arose. Cvi recognized this issue and designed and manufactured the CFK-1, a portable containment fill station for servicing high pressure backpack cylinders commonly supplied with nitrogen servicing systems*.

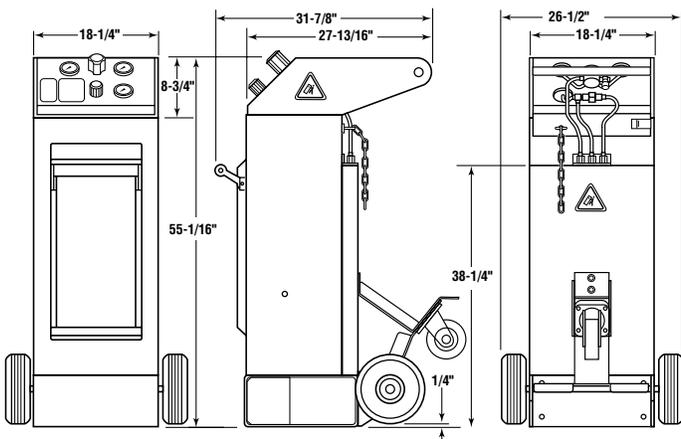
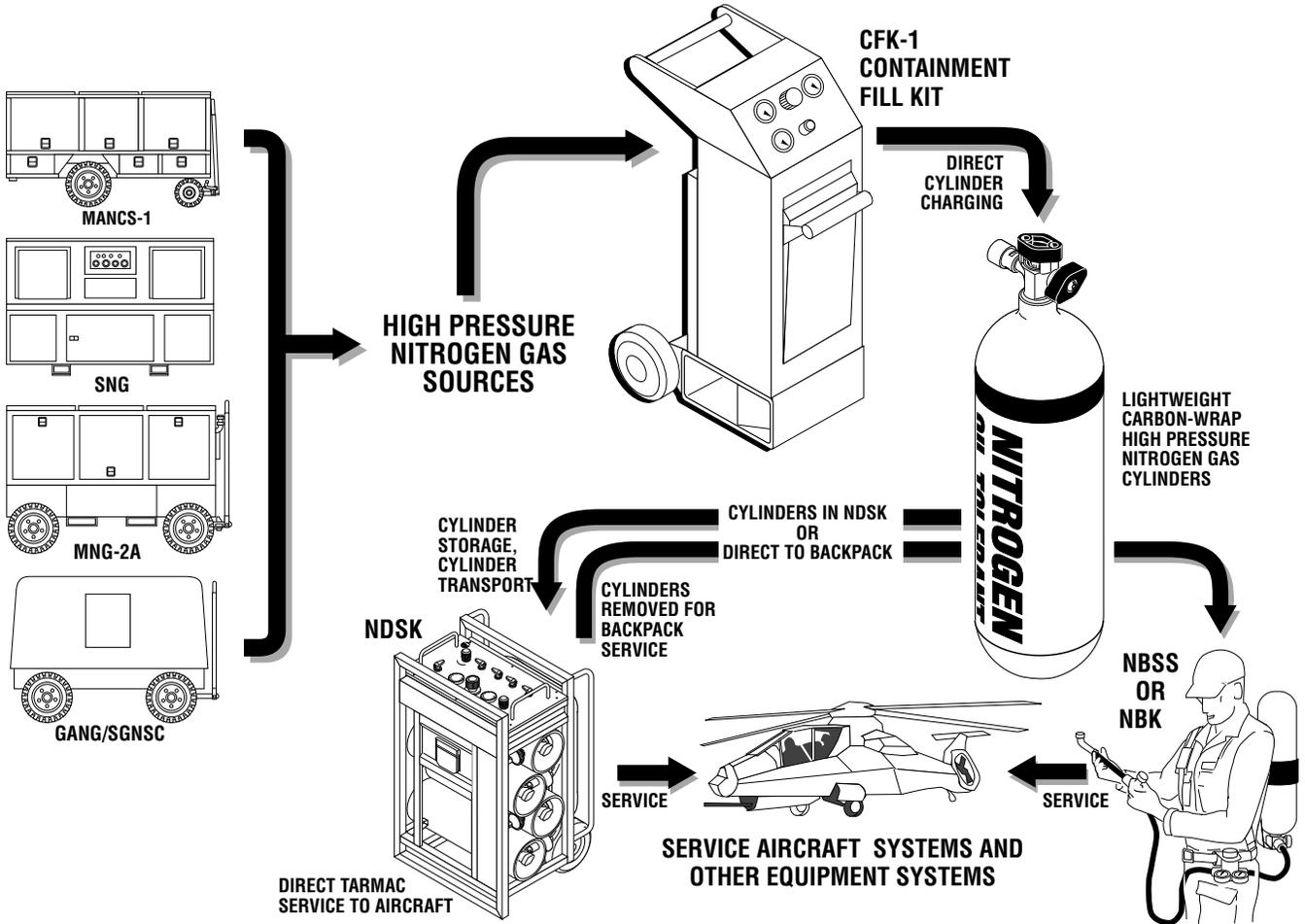
This portable fill kit is designed to provide maintenance personnel with a safe, heavy steel plate blast containment chamber and control panel with a complete set of fill controls. The unit is similar to the fill containment enclosures commonly used with ease in today's dive shops and fire stations for filling high pressure SCBA tanks.

To accomplish the filling operation the CFK-1 fill kit requires a source of dry clean high pressure nitrogen gas as typically supplied by mobile and/or stationary nitrogen generators found throughout military bases and naval aircraft carriers worldwide.

* Servicing systems include: the Nitrogen Backpack Servicing System (NBSS-3), the Nitrogen Backpack Service Kits (NBK-4 & NBK-5) and Nitrogen Deployment Sustainment Kit (NDSK-1) along with cylinders found with nitrogen generators including the Mobile Air/Nitrogen Charging Station (MANCS) and Mobile Nitrogen Generator (MNG-2A/SP7A)

CFK-1, Containment Fill Kit, PN: 410800

CONTAINMENT FILL KIT - CFK-1



PHYSICAL CHARACTERISTICS

Part Number: 410800

Height	55-1/16 inches
Depth	31-7/8 inches
Width (containment structure)	18-1/4 inches
Width (overall with wheels)	26-1/2 inches
Weight	530 lbs.

NDSK-1 A New Hybrid of the Original NDSK - Providing a Deployable Transport, Storage and Point-of-use High and Low Pressure Nitrogen Gas Maintenance Service Kit.

SYSTEM HIGHLIGHTS

- **Transport lightweight high pressure backpack cylinders to point of need.**
- **Service high and low pressure components with backpack cylinder service kits.**
- **Service high and low pressure components directly from cart's control panel and the two attached 30 foot high and low pressure service hoses.**

The NDSK-1 - Nitrogen Deployment Sustainment Kit is a unique service cart designed to operate in a mixed service environment and easily transported to forward and remote area.



Providing nitrogen gas at variable service pressures is mandatory for maintenance of aircraft, vehicles and various equipment. Tires, struts and accumulators are common applications since dry, inert nitrogen gas prevents explosions, corrosion and malfunction of critical components.

Easily deployable to forward or remote locations, the ability to bring high and low pressure nitrogen to the point of use is very difficult with existing equipment and even more difficult to dispense at the actual point of need.

The NDSK-1 solves the servicing problem by storing gas in very lightweight, man-portable backpack cylinders which can be transported to the exact point of need regardless of vehicle location or location of the service point on the aircraft or vehicle. The backpack cylinders provide nitrogen gas fill services with individual high and/or low pressure backpack service controls.

The NDSK-1 also provides the ability to be used as a standard nitrogen gas servicing cart with its two 30 foot high and low pressure service hoses, while providing the ability to remove individual high pressure cylinders for convenient backpack servicing use.

NDSK-1, Nitrogen Deployment Sustainment Kit, PN: 411000

AVAILABLE ON GSA CONTRACT NUMBER: **GS07F014DA**

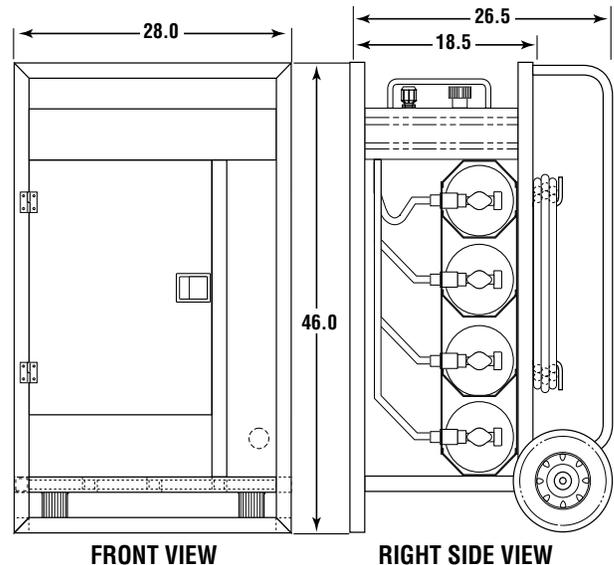
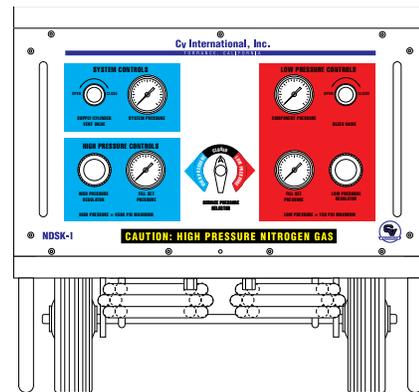
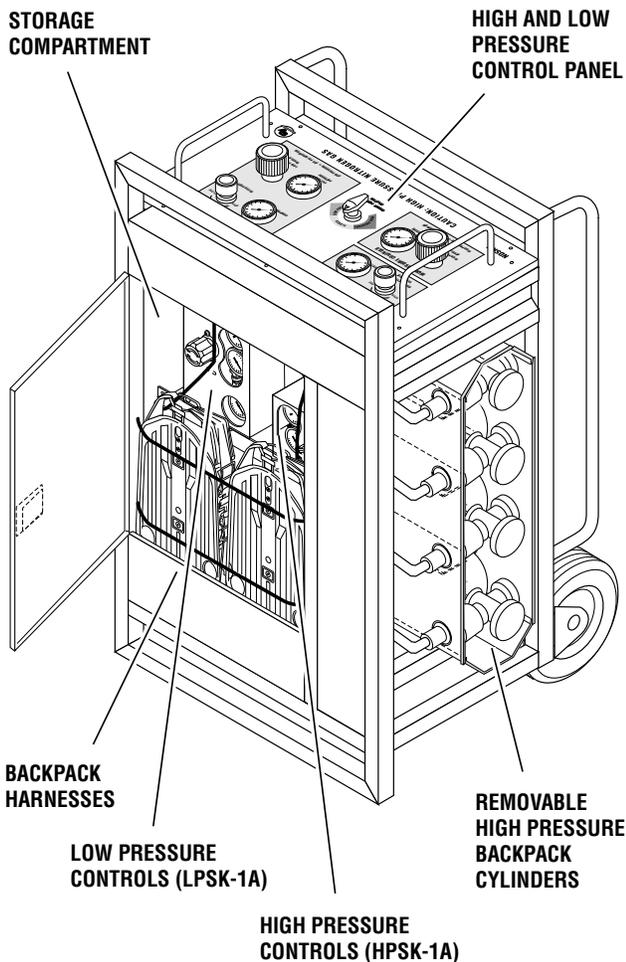
NDSK-1, PART NUMBER 411000 - CONFIGURATION:

Steel Tubular Frame with Two 10" Pneumatic Wheels and Storage Compartment for Harnesses and Service Controls.

- Four Lightweight Backpack Cylinders (CYL-74)
- Two Backpack Harnesses (HRN-3)
- One High Pressure Service Kit (HPSK-1A)
- One Low Pressure Service Kit (LPSK-1A)
- One High Pressure Service Hose w/ Fill Whip & Chuck
- One Low Pressure Service Hose w/ Fill Whip & Chucks
- One Each: CGA to QDC and QDC to CGA Adapters
- High and Low Pressure Pneumatic Service Control Panel.

NDSK-1 Specifications

LENGTH	28.0 inches
HEIGHT	46.0 inches
WIDTH (Frame)	18.5 inches
WIDTH (Overall)	26.5 inches
WEIGHT (Overall)	250 lbs.
WEIGHT (Cylinder Filled)	20 lbs.
LOW PRESSURE Backpack Controls	150 psig max.
HIGH PRESSURE Backpack Controls	4500 psig max.
CYLINDER CAPACITY (each)	88 scf
CYLINDER PRESSURE	4500 psig
CART NITROGEN CAPACITY	396 scf @ 4500 psi
.....	264 scf usable above 1500 psig



PORTABLE OXYGEN ANALYZER

Nitrogen Purity Check

The Nitrogen Generator Air Separation Membrane separates nitrogen gas from the other gaseous constituents of air; principally oxygen which is 20.9% of the atmosphere, the balance being nitrogen and very small amounts of other gases.

For purposes of measuring the percentage of nitrogen in a generator gas sample, the percentage of nitrogen includes the trace quantities of other inert gases such as neon, argon and helium.

Nitrogen purity is expressed as the difference between the percentage of O₂ as measured and 100% as shown in the table to the right:

Nitrogen purity measurement is accomplished by taking a sample of the nitrogen gas as it exits the membrane from the Nitrogen Sample Port located on the control panel of the nitrogen generator. The sample flow rate is controlled by an orifice in the sampling line to ensure that the meter oxygen sensing cell has the proper time to evaluate the sample.

A cost-effective, reliable means of monitoring multiple nitrogen generators with a single meter that is easily maintained by cognizant unit inspection personnel. Avoids meter exposure to ambient temperature and operational extremes.

PART NUMBER: 701509 (NSN 3655-01-431-5703)



INDICATOR READING %O ₂	PERCENT N ₂ PURITY
4.0	96.0
3.0	97.0
2.0	98.0
1.0	99.0
0.9	99.1
0.5	99.5

AVAILABLE ON GSA CONTRACT NUMBER: GS07F014DA

Portable Oxygen Analyzer P/N 701509 (NSN 3655-01-431-5703) - shown below, is a modified Teledyne Model BRC battery operated oxygen meter with a special three scale indicator. A special sampling hose adapts to the sampling port located on the control panel of CVI nitrogen generators.

Scale Range	Application
High 0-25% O ₂	Use for meter calibration @ 20.9% O ₂
MED 0-5% O ₂	Purity Range 97-98% O ₂
Low 0-1% O ₂	High Purity range 99% and above

