

DADCO®

Nitrogen Gas Booster System

DGB.160



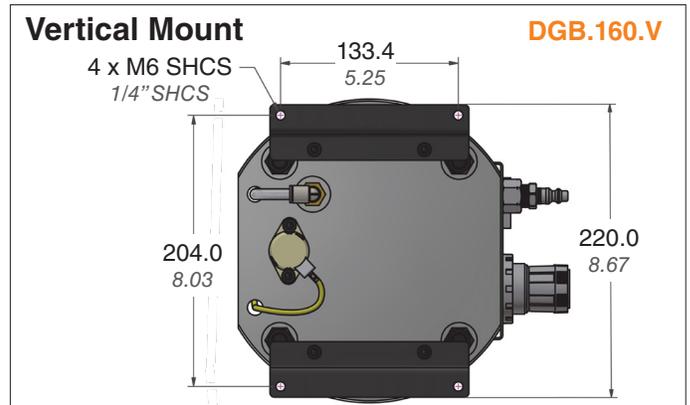
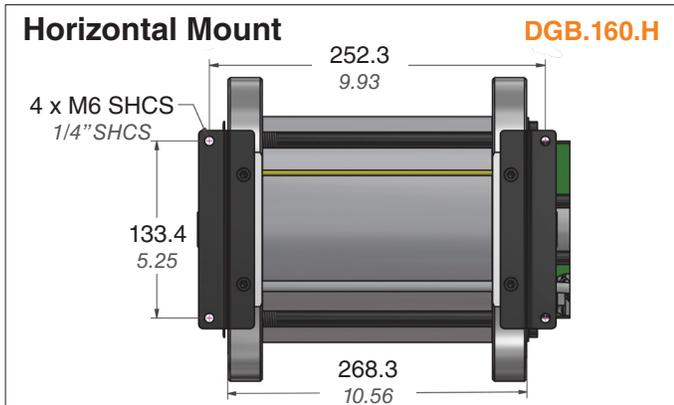
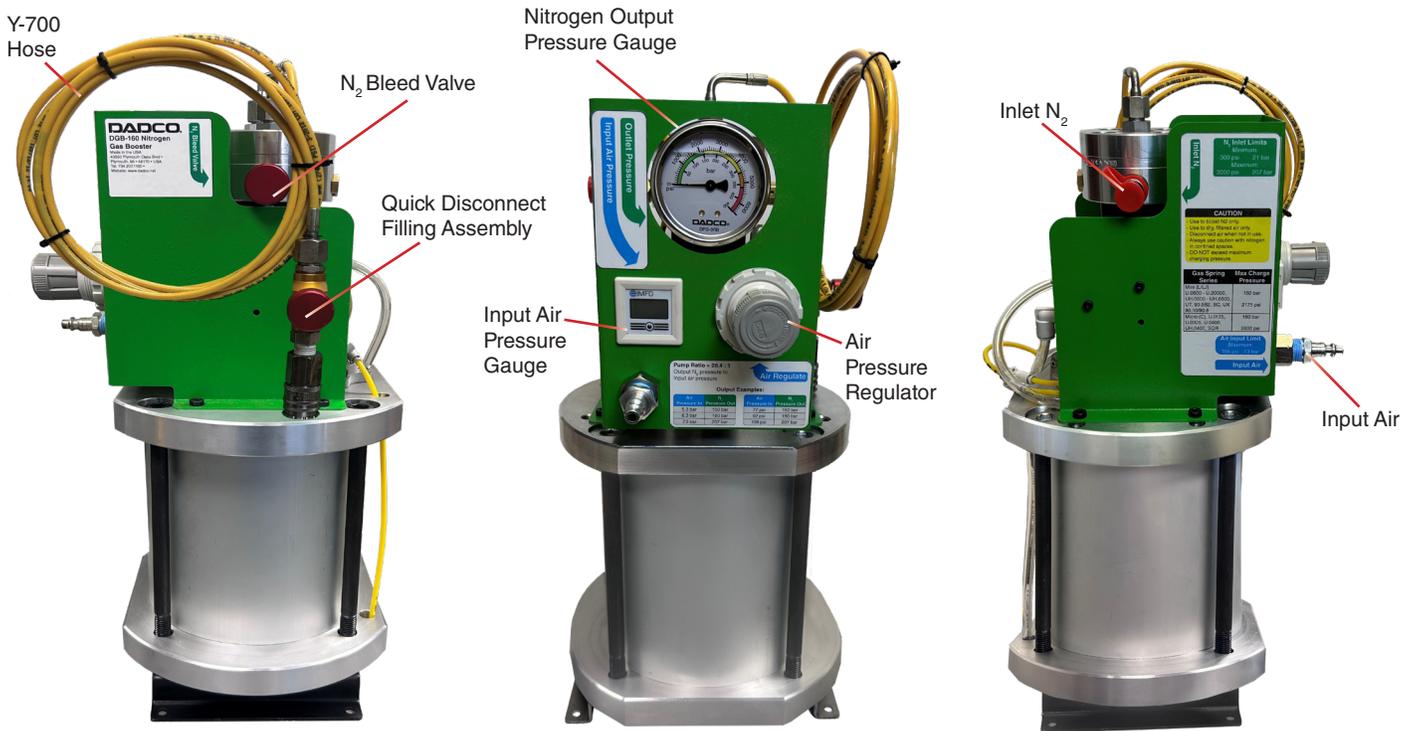
New!

A Compact, Cost-Effective Solution for Boosting Low Pressure Nitrogen Supply Tanks

Nitrogen Gas Booster

DADCO's new DGB.160 Nitrogen Gas Booster is our most efficient booster yet. Owing to a combination of larger compression volume and quicker cycle time, the DGB.160 provides significantly shorter fill times than previous models. Pairing the DGB.160 with a DADCO Surge Tank, creating an auxiliary tank, enables enhanced portability of nitrogen gas charging equipment. Nitrogen gas output calculations and accessories are shown on page 3. Contact DADCO for additional accessory options.

DGB.160 Components



Operating Specifications	
Weight:	< 16 kg. (< 35 lbs.)
Pump Ratio:	28.4:1
Maximum Nitrogen Output to Cylinder:	180 bar (2600 psi)
Maximum Input Air:	7.3 bar (106 psi)
Width x Length x Height:	220 mm x 275 mm x 490 mm 9.06" x 10.83" x 19.29"
Maximum Nitrogen Output:	270 bar (3900 psi)

Ordering Example:

DGB.160. H

Compact Nitrogen Gas Booster

Mount Options:
H = Horizontal;
V = Vertical;
STM.2 = Supply Tank Mount

Nitrogen Gas Booster

Nitrogen Gas Output:

To determine desired nitrogen output pressure from the DGB.160 use the formula below:

N = Nitrogen Output Pressure
A = Air Pressure
P = Pump Ratio (28.4)
Formula: $N = A \times P$

Example: Using the formula shown, the DGB.160 will yield 150 bar with 5.4 bar air input.
A = 5.3 bar
P = 28.4
5.3 x 28.4 = 150 (rounded)

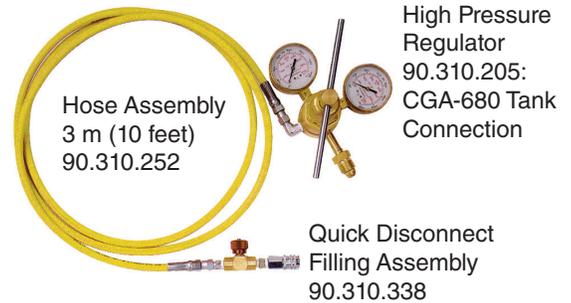
Air Pressure	Nitrogen Output Pressure
5.3 bar (77 psi)	150 bar (2175 psi)
6.3 bar (92 psi)	180 bar (2600 psi)
7.3 bar (106 psi)	207 bar (3000 psi)

Accessories

High Pressure Quick Disconnect Charging Assembly 90.310.041 (CA-41)

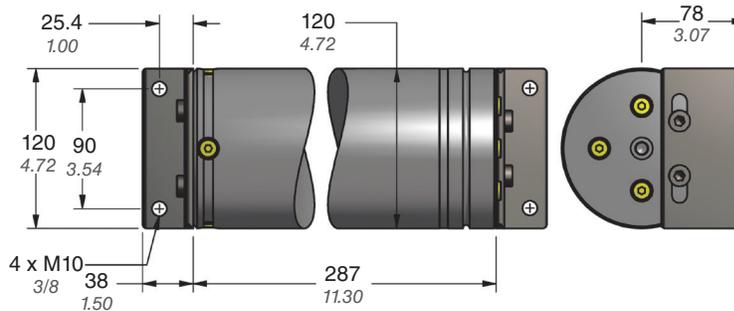
Use the DADCO High Pressure Quick Disconnect Charging Assembly, 90.310.041, for tank pressures above 152 bar (2200 psi) and up to 310 bar (4500 psi). The 90.310.041 includes the 90.310.205 Pressure Regulator, 90.310.252 Hose Assembly and the 90.310.338 Quick Disconnect Filling Assembly.

DADCO offers several Charging Assemblies to suit various tank connections. For more information see bulletin B01122C.

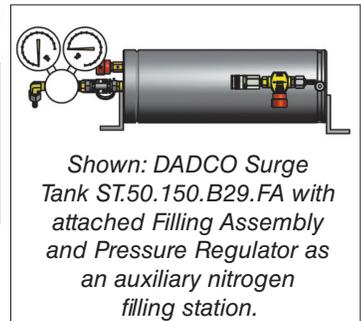


DADCO Surge Tank ST.50.150.B29

Use the DADCO Surge Tank ST.50.150.B29 to store nitrogen gas for filling gas springs or nitrogen gas systems.



Note: Volume of Tank L (in³) = 1.83 (1.12)



DADCO offers a variety of Surge Tank models. For more information, see bulletin B14102.

DADCO Pressure Analyzer 90.315.5

Use the DADCO Pressure Analyzer to easily charge, discharge and gauge the pressure in DADCO Nitrogen Gas Springs. For more information request bulletin B01133F.



DADCO Tank Analyzer

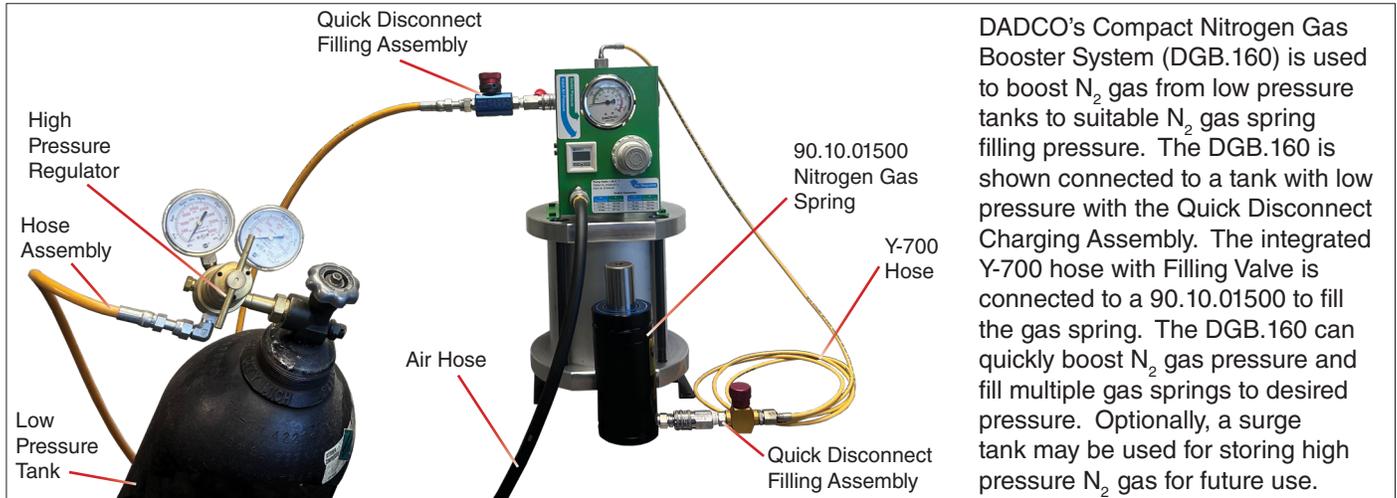
90.316.1 (use with CGA-580 thread)
90.316.2 (use with CGA-680 thread)

Easily thread the DADCO Tank Analyzer onto a nitrogen gas supply tank, to verify available pressure. Tank Analyzer includes a gauge and a bleed valve.



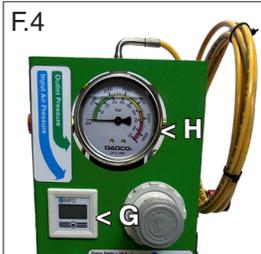
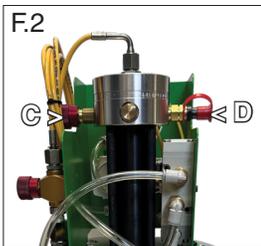
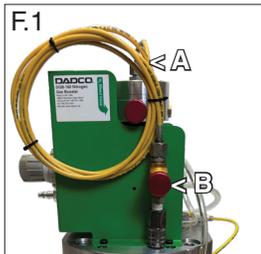
DGB.160

Application Example



DADCO's Compact Nitrogen Gas Booster System (DGB.160) is used to boost N₂ gas from low pressure tanks to suitable N₂ gas spring filling pressure. The DGB.160 is shown connected to a tank with low pressure with the Quick Disconnect Charging Assembly. The integrated Y-700 hose with Filling Valve is connected to a 90.10.01500 to fill the gas spring. The DGB.160 can quickly boost N₂ gas pressure and fill multiple gas springs to desired pressure. Optionally, a surge tank may be used for storing high pressure N₂ gas for future use.

Compact Booster Operation



CAUTION!

Use nitrogen gas only; use dry, filtered air only. Gas spring max charging pressure is 180 bar (2600 psi); surge tank max charging pressure is 270 bar (3900 psi). Always wear safety goggles when working with high pressure nitrogen gas.

- Completely uncoil Y-700 hose that is attached to the DGB.160 (A). Verify the Filling Valve (B) at the end of the hose is turned to the closed position, shown in F.1.
- Verify the Bleed Valve Knob (C), shown in F.2, is turned to the closed position.
- Using a DADCO Quick Disconnect Charging Assembly, connect low pressure nitrogen supply tank to the booster N₂ inlet (D), shown in F.2. *Note: For more information on DADCO's Quick Disconnect Charging Assemblies, refer to bulletin B01122C.*
- Attach shop air line to air input (E), shown in F.3. The pump will begin to cycle when air is supplied.
- Pull out the Air Adjustment Regulator Knob (F), shown in F.3, located on the top of the DGB.160 and turn to your desired pressure. Regulated air pressure is indicated on gauge (G), shown in F.4. (Refer to the chart on page 3 of bulletin for pressure-to-nitrogen-output pressure examples). Once you have set the regulator to your desired air pressure push knob in to lock into place.
- Read the Air Pressure (G), and Output Nitrogen Gas (H) gauges, shown in F.4, located on the front of the booster to determine if your desired pressure has been met.
- Connect the Filling Valve (B), shown in F.1, at the end of Y-700 hose to desired nitrogen gas spring, surge tank or control panel then turn to the open position. For more detailed charging information refer to bulletin B00135B.
- Once desired nitrogen pressure has been reached, turn Filling Valve (B), shown in F.1, to the closed position and disconnect from the charged nitrogen gas receptacle.
- Disconnect air line from air inlet (E) on booster, shown in F.3. *Note: Booster will continue to run when nitrogen supply tank is empty; disconnect air when not in use. Do not use tanks below 500 psi.*
- Remove Quick Disconnect Charging Assembly connected to the booster N₂ inlet (D), shown in F.2.
- Re-coil Y-700 hose on the side of booster (A), shown in F.1.

DADCO®

The global leader in nitrogen gas spring technology

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