# 东莞赛森特流体控制设备有限公司

**Dongguan Suncenter Fluid Control Equipment Co., Ltd**

## Pneumatic (Air compressor driven) gas booster pump system


Dongguan Suncenter Fluid Control Equipment Co., Ltd is the member company of Suncenter Group, which is located in Dongguan city of Guangdong province in China. With more than 15 years experiences in fluid pressure exchange and controlling field, we provide various kinds of pneumatic and hydraulic booster pumps, systems and solutions to the customers all over the world. Due to our best product quality, competitive price as well as excellent after-sales service, we have win a great reputation in the field.

**Our main products including:**

High Pressure Booster Pumps ( Gas Booster Pump, Air Driven Liquid Pump, Air Amplifiers)

High Pressure Systems (Gas/Liquid Booster System,Hydro test bench,Chemical injection system,CO2/FM200 filling machine, Tube Expanding Machine)

High Pressure Test Equipment(Hydraulic/Burst/Hydrostatic test machine,Cylinder test machine, Valve test bench,Impulse Testing Machine, etc.)

### Product Application

Oil Industry, Gas Industry, Chemical Industry, Fire Fighting, Research Institutions etc.

### Our service

13 months' free warranty since the purchasing date and free technical support during lifetime

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**Suncenter** - Gas booster systems are compact and delicacy solution tailored to customer specific requirements with gas boosters as well as all accessories to be fitted and installed in the frame or a closed cabinet.

To operate this system, the pressure gauges, valves and pressure regulators have to be fitted on panels. The outlet pressure is easily to be set through a simple air regulator.

The pump stops automatically when this end pressure is reached and restarts with a slight drop in the outlet pressure or an increase in the air drive pressure.

Suncenter - Pneumatic booster system are used for oil free compression of clean shop air as well as industrial gases like Argon, Helium, Oxygen, Hydrogen and Nitrogen,CO2, etc..Driven air from 3 bar to 8 bar (from air compressor).

Operating pressure up to 160 MPa, for higher pressure, pump with double driven heads is an ideal option.

## Applications

- Pressure test with gas
- Gas transfer and filling (Argon/Helium/Hydrogen/Oxygen/Nitrogen/CO2/NO2/CH4/LNG/LPG/CNG/FM200 etc.)
- Charging of gas cylinder and accumulator with nitrogen
- Supply for isolating gas systems
- Gas assisted injection molding
- Transfer of oxygen cylinders
- Charging of breathing air bottles
- Leak test
- Hydrostatic Testing for valves, tanks, pressure vessels, pressure switches, hoses, pipes and tubing, pressure gauges, cylinders, transducers, well casings, BOPs, gas bottles and air craft components
- Safety valve adjusting

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# Suncenter DGS Series Pneumatic (Air driven) Gas Booster System

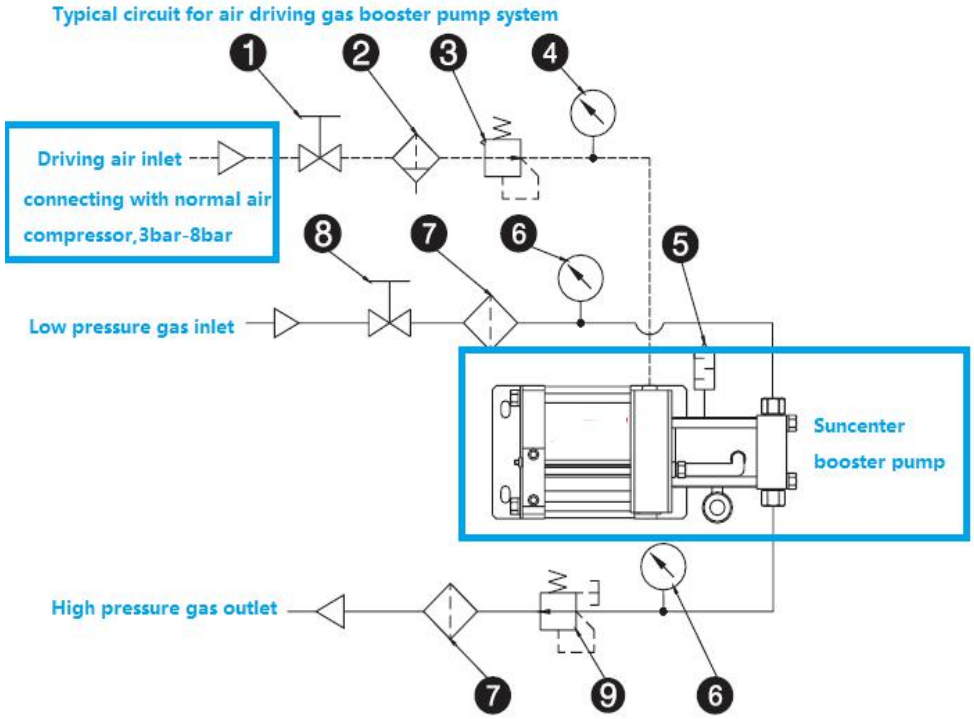
For the gas booster filling/test station,
we have three different cabinet design for choosing

Model A
closed type with
carbon steel material

Model B
closed type with
stainless steel material

Model C
frame type with
stainless steel material

**DGS gas booster system = booster pump+ following valves, gages, and parts**




Number Explanation

1. driving air switch
2. air filter
3. air pressure adjusting valve
4. pressure gage
5. muffler
6. pressure gage
7. gas filter
8. needle valve
9. safety relief valve

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## The hottest selling- model A and model C cabinet picture

## The standard gas booster system including following parts:

Air –driven gas booster pump (DGA/DGD/DGT three series for choosing)

Stainless steel (carbon steel) material cabinet (Three models for choosing)

F.R.L combination for driven air (adjusts air pressure, add lubricating oil and water filter)

Driven air switch (Pump starting switch), driven air pressure gauge

Gas inlet switch, Gas inlet pressure gauge

Gas outlet switch, Gas outlet pressure gauge,  unloading valve, interconnecting pipes etc.

And we could also customize it according to clients' special requirement.

## Technical specification for DGS-DGA Series:

(Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure)

| Model | Pressure boost ratio | Min. gas Inlet pressure $P_A$ (bar) | Max.gas Inlet pressure $P_A$ (bar) | Max. gas outlet pressure $P_B$ (bar) | Driven air pressure $P_L$ | Formula to calculate gas outlet pressure $P_B$ | Connection: Gas Inlet / Gas outlet (NPT thread) | Max. flow at driven air pressure of 6bar (L/min) |
|---|---|---|---|---|---|---|---|---|
| DGS-DGA02 | 2：1 | 1.0 | 16 | 16 | 2bar-8 bar | 2X $P_L$ | 1/2 / 1/2 | 960 (at $P_A$ of 6 bar ) |
| DGS-DGA05 | 5：1 | 0 | 40 | 40 | 2bar-8 bar | 5X$P_L$ | 1/2 / 1/2 | 680(at $P_A$ of 6 bar ) |
| DGS-DGA06 | 6：1 | 2.0 | 48 | 48 | 2bar-8 bar | 6X$P_L$ | 1/2 / 1/2 | 360(at $P_A$ of 10 bar ) |
| DGS-DGA10 | 10：1 | 3.5 | 80 | 80 | 2bar-8 bar | 10X$P_L$ | 3/8/ 3/8 | 210(at $P_A$ of 10 bar ) |
| DGS-DGA15 | 15：1 | 3.5 | 120 | 120 | 2bar-8 bar | 15XPL | 3/8/ 3/8 | 190(at PA of 10 bar ) |
| DGS-DGA25 | 25：1 | 7.0 | 200 | 200 | 2bar-8 bar | 25XPL | 1/4/ 1/4 | 120(at PA of 20 bar ) |
| DGS-DGA40 | 40：1 | 10 | 320 | 320 | 2bar-8 bar | 40X$P_L$ | 1/4/ 1/4 | 200(at $P_A$ of 40 bar ) |
| DGS-DGA60 | 60：1 | 20 | 480 | 480 | 2bar-8 bar | 60X$P_L$ | 1/4/ 1/4 | 180(at $P_A$ of 40 bar ) |
| DGS-DGA100 | 100：1 | 25 | 800 | 800 | 2bar-8 bar | 100X$P_L$ | 1/4/ M14X1.5 | 136(at $P_A$ of 40 bar ) |

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## Technical specification for DGS-DGD Series:

(Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure)

| Model | Pressure boost ratio | Min. gas Inlet pressure $P_A$ (bar) | Max.gas Inlet pressure $P_A$ (bar) | Max. gas outlet pressure $P_B$ (bar) | Driven air pressure $P_L$ | Formula to calculate gas outlet pressure $P_B$ | Connection: Gas Inlet / Gas outlet (NPT thread) | Max. flow at driven air pressure of 6bar (L/min) |
|---|---|---|---|---|---|---|---|---|
| DGS-DGD10 | 10:1 | 3.5 | 80 | 80 | 2bar-8 bar | 10XPL+ PA | 3/8/3/8 | 410(at PA of 6 bar ) |
| DGS-DGD15 | 15:1 | 5 | 120 | 120 | 2bar-8 bar | 15XPL+ PA | 3/8/3/8 | 350 (at PA of 6 bar ) |
| DGS-DGD25 | 25:1 | 10 | 200 | 200 | 2bar-8 bar | 25XPL+ PA | 1/4/1/4 | 396(at PA of 20 bar ) |
| DGS-DGD40 | 40:1 | 15 | 320 | 320 | 2bar-8 bar | 40XPL+ PA | 1/4/1/4 | 320(at PA of 40 bar ) |
| DGS-DGD60 | 60:1 | 25 | 480 | 480 | 2bar-8 bar | 60XPL+ PA | 1/4/1/4 | 215(at PA of 40 bar ) |
| DGS-DGD100 | 100:1 | 35 | 800 | 800 | 2bar-8 bar | 100XPL+ PA | 1/4/M14*1.5 | 300(at PA of 60 bar ) |
| DGS-DGD120 | 120:1 | 50 | 960 | 960 | 2bar-8 bar | 120XPL+ PA | 1/4/M14*1.5 | 180(at PA of 60 bar ) |
| DGS-DGD200 | 200:1 | 200 | 1600 | 1600 | 2bar-8 bar | 200XPL+ PA | 1/4/M14*1.5 | 400(at PA of 200 bar ) |

## Technical specification for DGS-2DGD Series:

(Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure)

| Model | Pressure boost ratio | Min. gas Inlet pressure $P_A$ (bar) | Max.gas Inlet pressure $P_A$ (bar) | Max. gas outlet pressure $P_B$ (bar) | Driven air pressure $P_L$ | Formula to calculate gas outlet pressure $P_B$ | Connection: Gas Inlet / Gas outlet (NPT thread) | Max. flow at driven air pressure of 6bar (L/min) |
|---|---|---|---|---|---|---|---|---|
| DGS-2DGD10 | 10:1 | 3 | 80 | 80 | 2bar-8 bar | 10XPL+ PA | 1/2 / 1/2 | 980(at PA of 6 bar ) |
| DGS-2DGD25 | 25:1 | 6 | 200 | 200 | 2bar-8 bar | 25XPL+ PA | 3/8 / 3/8 | 560(at PA of 10 bar ) |
| DGS-2DGD40 | 40:1 | 25 | 320 | 320 | 2bar-8 bar | 40XPL+ PA | 3/8 / 3/8 | 480(at PA of 40 bar ) |
| DGS-2DGD60 | 60:1 | 30 | 480 | 480 | 2bar-8 bar | 60XPL+ PA | 3/8 / 3/8 | 320(at PA of 40 bar ) |

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## Technical specification for DGS-DGT Series:

(Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure)

| Model | Pressure boost ratio | Min. gas Inlet pressure PA (bar) | Max.gas Inlet pressure PA (bar) | Max. gas outlet pressure PB (bar) | Driven air pressure PL | Formula to calculate gas outlet pressure PB | Connection: Gas Inlet / Gas outlet (NPT thread) | Max. flow at driven air pressure of 6bar (L/min) |
|---|---|---|---|---|---|---|---|---|
| DGS-DGT15 | 15:1 | 0.1 | 56 | 120 | 2-8 bar | 15XPL | 3/8/ 1/4 | 230(at PA of 8 bar ) |
| DGS-DGT25 | 25:1 | 0.1 | 10 | 200 | 2-8 bar | 25XPL | 3/8/ 1/4 | 156(at PA of 8 bar ) |
| DGS-DGT7/25 | 25:1 | 5 | 56 | 200 | 2-8 bar | 25XPL | 3/8/ 1/4 | 156(at PA of 8 bar ) |
| DGS-DGT40 | 40:1 | 0.1 | 10 | 320 | 2-8 bar | 40XPL | 3/8/ 1/4 | 124(at PA of 8 bar ) |
| DGS-DGT15/40 | 40:1 | 5 | 120 | 320 | 2-8 bar | 40XPL | 3/8/ 1/4 | 124(at PA of 8 bar ) |
| DGS-DGT60 | 60:1 | 0.1 | 10 | 480 | 2-8 bar | 60XPL | 3/8/ 1/4 | 80(at PA of 15 bar ) |
| DGS-DGT15/60 | 60:1 | 6 | 120 | 480 | 2-8 bar | 60XPL | 3/8/ 1/4 | 80(at PA of 15 bar ) |
| DGS-DGT100 | 100:1 | 0.1 | 10 | 800 | 2-8 bar | 100XPL | 3/8/ 1/4 | 63(at PA of 8 bar ) |
| DGS-DGT120 | 120:1 | 0.1 | 10 | 960 | 2-8 bar | 120XPL | 1/4/M14*1.5 | 50(at PA of 8 bar ) |

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## Technical specification for DGS-2DGT series:

(Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure)

| Model | Pressure boost ratio | Min. gas Inlet pressure $P_A$ (bar) | Max.gas Inlet pressure $P_A$ (bar) | Max. gas outlet pressure $P_B$ (bar) | Driven air pressure $P_L$ | Formula to calculate gas outlet pressure $P_B$ | Connection: Gas Inlet / Gas outlet (NPT thread) | Max. flow at driven air pressure of 6bar (L/min) |
|---|---|---|---|---|---|---|---|---|
| DGS-2DGT7/15 | 15:1 | 4 | 56 | 120 | 2bar-8 bar | 15XPL | 3/8 / 3/8 | 430(at PA of 10 bar ) |
| DGS-2DGT7/25 | 25:1 | 5 | 56 | 200 | 2bar-8 bar | 25XPL | 3/8 / 3/8 | 300(at PA of 10 bar ) |
| DGS-2DGT15/40 | 40:1 | 7 | 120 | 320 | 2bar-8 bar | 40XPL | 3/8 / 3/8 | 180(at PA of 10 bar ) |
| DGS-2DGT15/60 | 60:1 | 7 | 120 | 480 | 2bar-8 bar | 60XPL | 3/8 / 3/8 | 120(at PA of 10 bar ) |

Note: $P_L$: driven air pressure $P_A$: gas inlet pressure $P_B$: gas outlet pressure

In order to extend the lifetime of the pump, the driven air pressure should not be higher than 8 bar