

Compressed Air Driven Gas Booster Pump- DGA/DGD/DGT Series

Air Driven Gas Boosters provide for pressures up to 80Mpa (11,600 psi). Used for virtually all known gases, these boosters are ideal for increasing gas pressure, transferring high pressure gas, charging cylinders and scavenging.

Key features include:

- Compressed Air driven - no electricity required (connect to normal air compressor)
- In order to extend the lifetime of the pump, the driving air pressure should not be higher than 8 bar
- No airline lubricator required
- Hydrocarbon free - separation between air and gas sections
- Pressures to 80Mpa (11,600 psi)
- Wide range of models with different ratios
- Built-in-cooling on most models
- Easy to install, operate and maintain
- Best price / performance ratio
- No heat, flame or spark risk and explosion proof
- Automatic pressure holding, whatever the cause of the pressure drop, the Suncenter pump will automatically start, keep the loop pressure constant
- Applicable gas: Argon/Helium/Hydrogen/Oxygen/NO2/CH4/LNG/LPG/CNG/FM200 etc.

Applications for Air Driven Gas Boosters

MAXITROL Air Driven Gas Boosters provide for pressures up to 80Mpa. Used for oil free compression not only of air or Nitrogen, but also flammable and risk gases like hydrogen, oxygen and natural gas. These boosters are ideal for increasing gas pressure, transferring high pressure gas, charging cylinders and scavenging.

Air driven boosters are an efficient alternative instead of electrically driven products and can be used in explosion- proof areas.

As a result of the wide range of models it is possible to select the optimum booster for each application. Single stage, double acting or two stage boosters or a combination of these models can be used to achieve different operating pressures and flow capacities.

MAXITROL Air Driven Gas Boosters are ideal and widely used for hydrostatic and burst testing for valves, pipes, tubing and pressure vessels; Calibration for safety valves; Automobile regulator detecting and telecommunication cable inflatable appliances.

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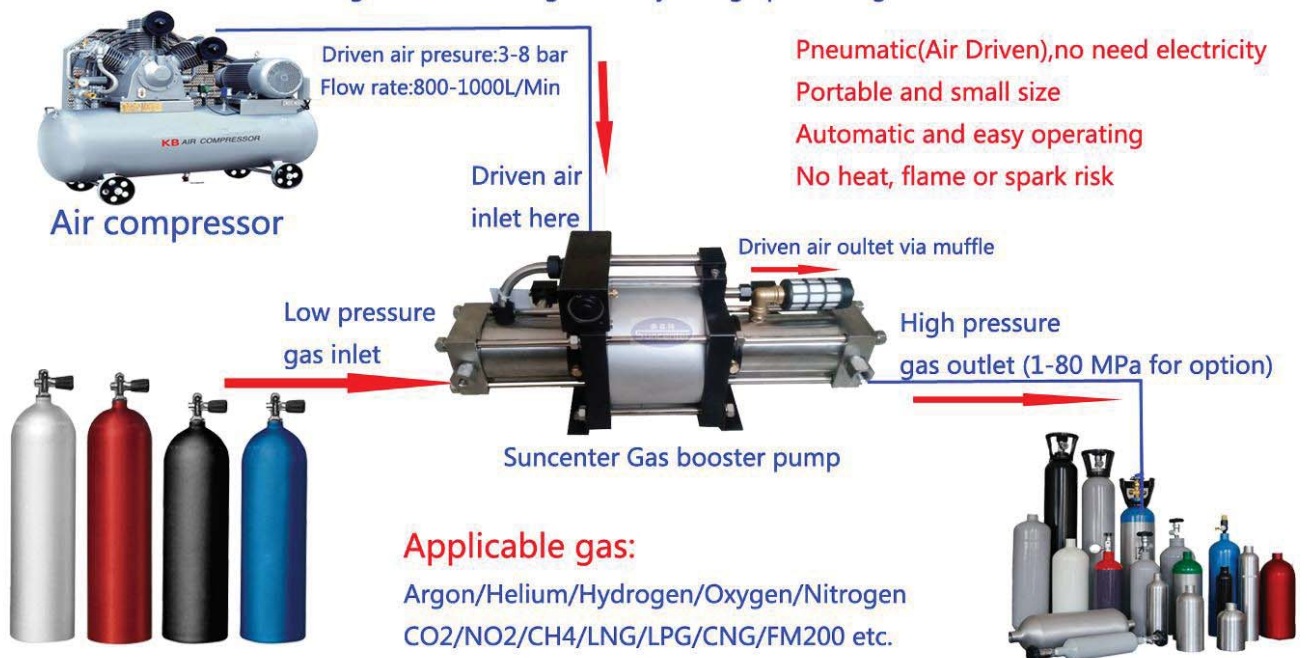
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Applications

- 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

Suncenter gas booster pump working circuit

For gas transfer/filling/recovery or high pressure gas test



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DGA series gas booster pumps(Single acting, single air drive head):

DGA pumps are available with high quality seals, which provide significantly better service life as well. Pump head fitted with exhaust cooling devices. All parts in contact with the gas are made of stainless steel.



Technical specification

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)
DGA02	2 : 1	1.0	16	16	3-8 bar	$2X P_L$	1/2 / 1/2	960 (at P_A of 6 bar)
DGA05	5 : 1	1.5	40	40	3-8 bar	$5X P_L$	1/2 / 1/2	680(at P_A of 6 bar)
DGA10	10 : 1	3.5	80	80	3-8 bar	$10X P_L$	3/8/ 3/8	210(at P_A of 10 bar)
DGA25	25 : 1	7.0	200	200	3-8 bar	$25X P_L$	1/4/ 1/4	120(at P_A of 20 bar)
DGA40	40 : 1	10	320	320	3-8 bar	$40X P_L$	1/4/ 1/4	200(at P_A of 40 bar)
DGA60	60 : 1	20	480	480	3-8 bar	$60X P_L$	1/4/ 1/4	180(at P_A of 40 bar)
DGA100	100 : 1	25	800	800	3-8 bar	$100X P_L$	1/4/ M14X1.5	136(at P_A of 40 bar)
DGA130	130 : 1	35	800	1040	3-8 bar	$130X P_L$	1/4/ M14X1.5	120(at P_A of 40 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

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DGD series gas booster pumps(Double acting):

DGD series pumps are double acting, single stage with double air driven heads type.

- DGD pumps are available with high quality seals, which provide significantly better service life
- Double pump heads with exhaust cooling devices.
- All components in contact with the gas are made of stainless steel.
- Pipes mounting way are available as customized.



Technical specification

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)
DGD10	10:1	3.5	80	80	3-8 bar	10XPL+ P_A	3/8/3/8	410(at P_A of 6 bar)
DGD25	25:1	10	200	200	3-8 bar	25XPL+ P_A	1/4/1/4	396(at P_A of 20 bar)
DGD40	40:1	15	320	320	3-8 bar	40XPL+ P_A	1/4/1/4	320(at P_A of 40 bar)
DGD60	60:1	25	480	480	3-8 bar	60XPL+ P_A	1/4/1/4	215(at P_A of 40 bar)
DGD100	100:1	35	800	800	3-8 bar	100XPL+ P_A	1/4/M14*1.5	300(at P_A of 60 bar)
DGD130	130:1	50	1040	1040	3-8 bar	130XPL+ P_A	1/4/M14*1.5	180(at P_A of 60 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

2DGD series gas booster pumps(Double acting, double air driven heads):



Technical specification

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)
2DGD10	10:1	3	80	80	3-8 bar	10XPL+ P_A	1/2 / 1/2	980(at P_A of 6 bar)
2DGD25	25:1	6	200	200	3-8 bar	25XPL+ P_A	3/8 / 3/8	560(at P_A of 10 bar)
2DGD50	50:1	25	400	400	3-8 bar	50XPL+ P_A	3/8 / 3/8	320(at P_A of 25 bar)

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

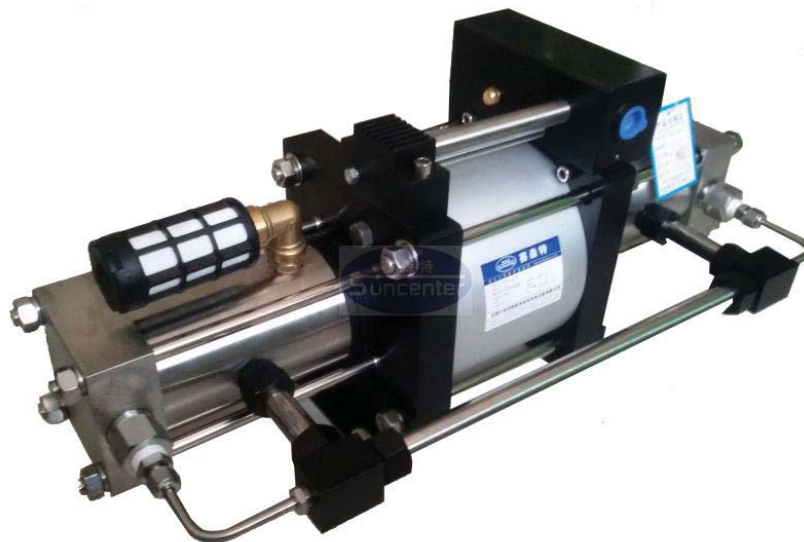
In order to extend the lifetime of the pump, the driven air pressure should not be higher than 8 bar

DGT series gas booster pumps(Double acting, double stage, single air drive head):

DGT pumps are double acting, double stage with single air drive head pumps.

They can provide for super high pressure with very low inlet pressure.

- DGT pumps are available with high quality seals, which provide significantly better service life
- Double pump heads with exhaust cooling devices.
- All parts in contact with the gas are made of stainless steel.



Technical specification

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)
DGT25	25:1	1	10	200	3-8 bar	$25XP_L+3.5XP_A$	3/8/ 1/4	136(at P_A of 8 bar)
DGT40	40:1	1	10	320	3-8 bar	$40XP_L+ 6XP_A$	3/8/ 1/4	124(at P_A of 8 bar)
DGT10/60	10:1/60:1	1	10	480	3-8 bar	$60XP_L+6X P_A$	3/8/ 1/4	84(at P_A of 8 bar)
DGT25/60	25:1/60:1	10	25	480	3-8 bar	$60XP_L+2.5XP_A$	3/8/ 1/4	80(at P_A of 15 bar)
DGT100	100:1	1	10	800	3-8 bar	$100XP_L+10XP_A$	3/8/ M14*1.5	63(at P_A of 8 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

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DGS Series Pneumatic (Air driven) Gas Booster System
DGS Series Pneumatic (Air driven) Power Packs

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



Model A
closed type with
carbon steel material

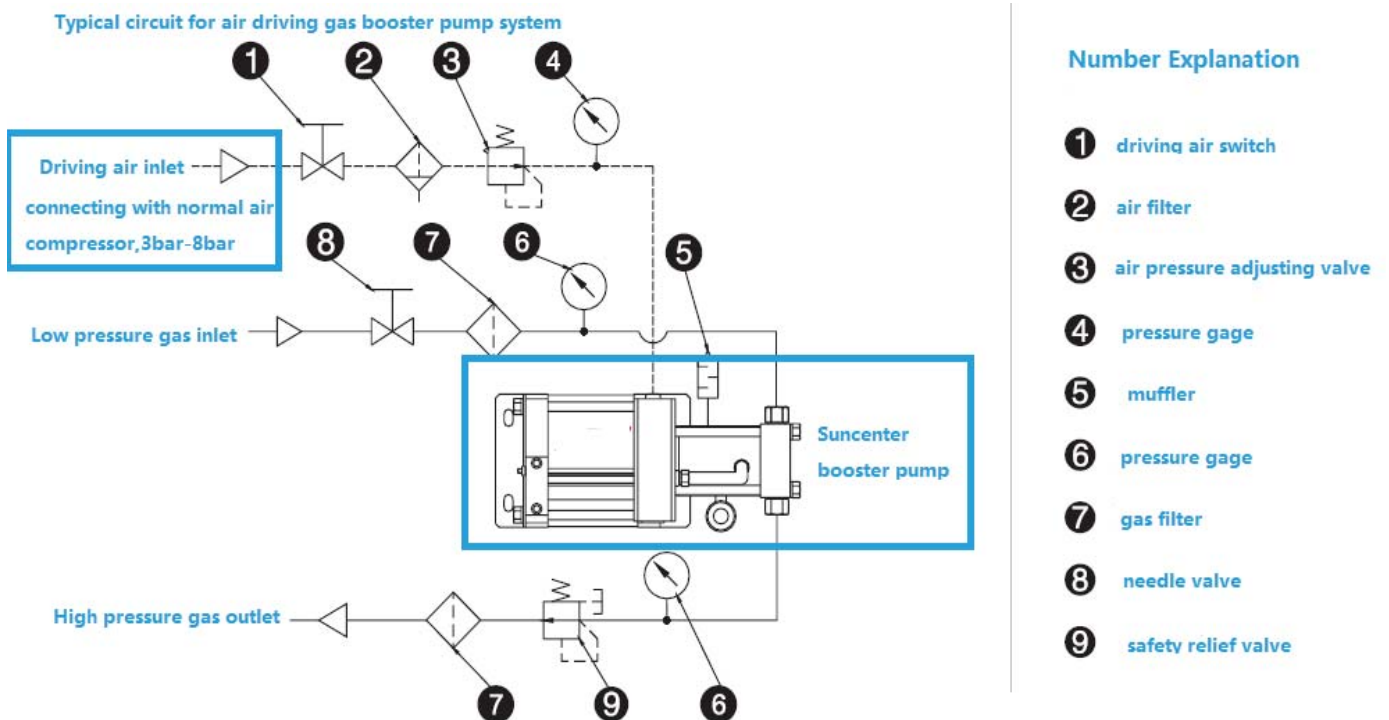


Model B
closed type with
stainless steel material



Model C
frame type with
stainless steel material

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



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How to Select Maxitrol Air Driven Gas Boosters/Systems?

In order to choose suitable booster pump or systems for you, please kindly reply us the following questions:

- 1.What is your present gas pressure?()bar
- 2.What is your gas?oxygen gas,nitrogen gas or other gases?
- 3.What outlet gas pressure do you want?()bar
- 4.What driven air pressure (of your air compressor) can you offer?()bar, because our booster is completely air operated and no need any electricity
- 5.What outlet gas flow rate do you need?()L/min

If you are interested in any of our products, please feel free to contact us.
We could also make the customized products according to your special requirements.

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