

# GASBOOSTER SERIES

Pumster Air driven gas boosters are suitable for explosion proof area.

Pumster air driven gas boosters work on the principle of Pascal's law by the difference of compression ratio.



## HOW IT WORKS

**Pneumatic** operation  
by applying Pascal's Law

Based on Pascal's law, air driven GAS BOOSTER is increasing the pressure by the compression ratio. Air pressure makes the plunger to reciprocate. With repeated reciprocating of the plunger, it discharges and increases the gas to out-check after compressing the gas through in-check.

## Features of Gas Booster



Applied in industrial gas and special gas such as Argon, Helium, Nitrogen, Oxygen etc.,



Stay cool when working hard due to a cooling jacket



No requirement for electricity



Oil free, no requirement for oil replacement, contamination



Suitable for explosion proof area



Available as a complete packaged system



# GB-SS SERIES

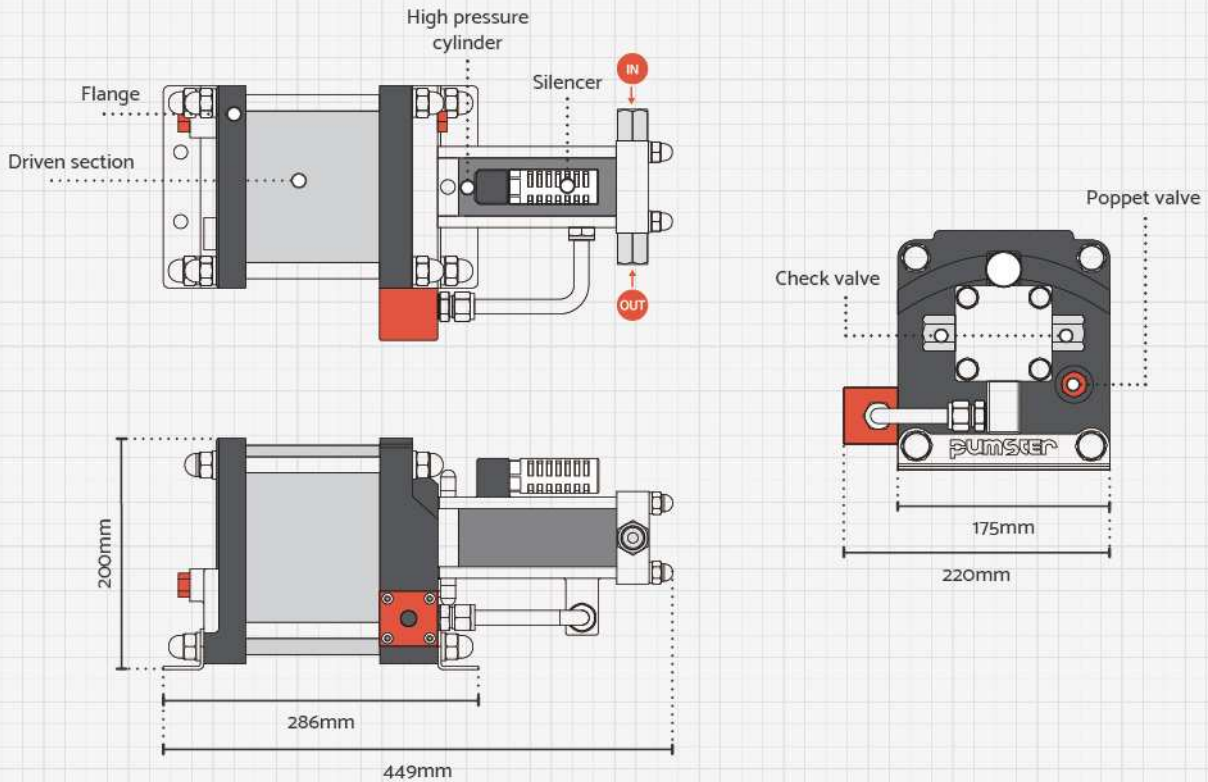
Single stage & Single driven

Gas Booster GB-SS is consists of single stage and single driven part.  
There are 5 types depending on compression ratio.  
( compression ratio: 1:7 / 14 / 30 / 50 / 75 )



GB-SS

# SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-SS

# SPECIFICATION

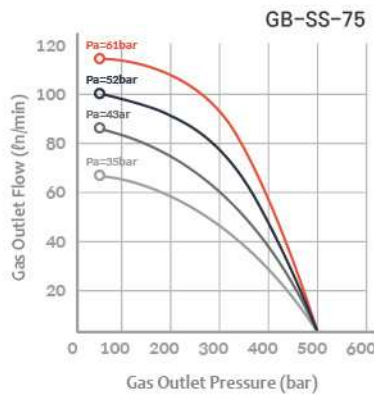
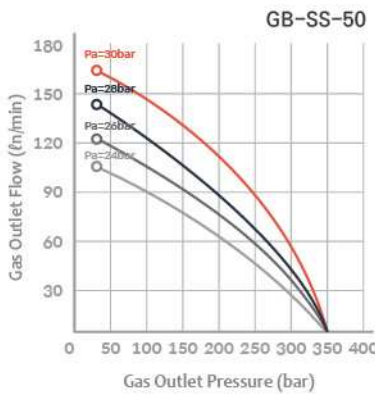
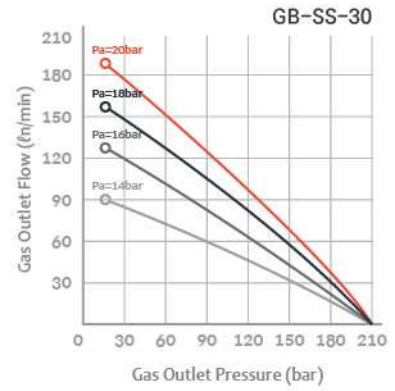
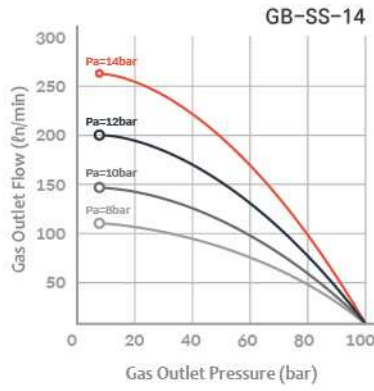
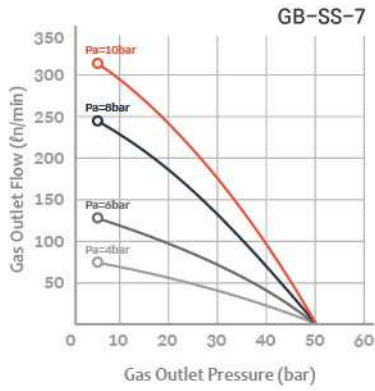
※ Actual weight could be slightly different.

※ M.P(kg/cm<sup>2</sup>) = Ratio \* Air Drive Pressure(kg/cm<sup>2</sup>)

※ M.P is calculated with 7 bar(standardized air pressure).

Model	Ratio	Air Drive Pressure(kg/cm <sup>2</sup> )	Max. Pressure(kg/cm <sup>2</sup> )	Min.Suction Pressure(kg/cm <sup>2</sup> )	Connections		Flow rate (ℓn /min)	Weight (kg)
					Inlet	Outlet		
SS-7	1 : 7	5~10	49	4	1/2" PT	1/2" PT	555	16
SS-14	1 : 14		98	7			600	16
SS-30	1 : 30		210	14			564	17
SS-50	1 : 50		350	21	9/16" 18UNF	9/16" 18 UNF	494	18
SS-75	1 : 75		525	35			370	18

# GB-SS PERFORMANCE CURVES



**Theoretical charging time formula**

Reservoir tank x atm = TAL  
 TAL / ( Flow rate/sec ) = total charging time

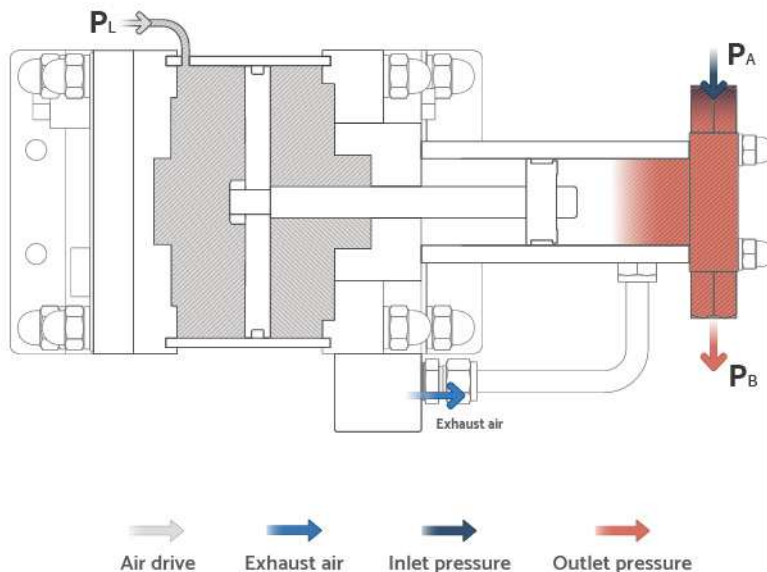
\* Outlet pressure (Pb) = I-PI  
 (Outlet Pressure = Compression ratio · Air drive)

**Precautions**

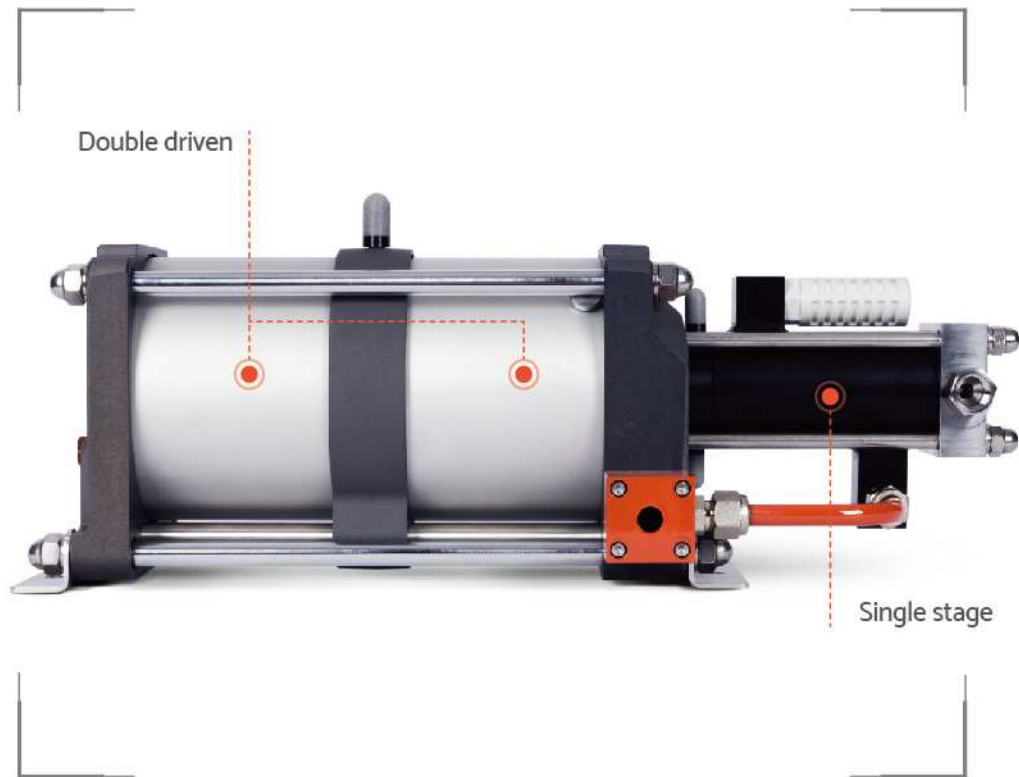
- There are lots of variables when increasing pressure under high pressure
- Driven part: driven air pressure, flow rate
- High pressure part: inflow gas pressure, feed rate
- Actual flow rate will be different depending on utility.

# GB-SS OVERVIEW

PL - Air drive  
 PA - Suction gas  
 PB - Discharging gas







# GB-SD SERIES

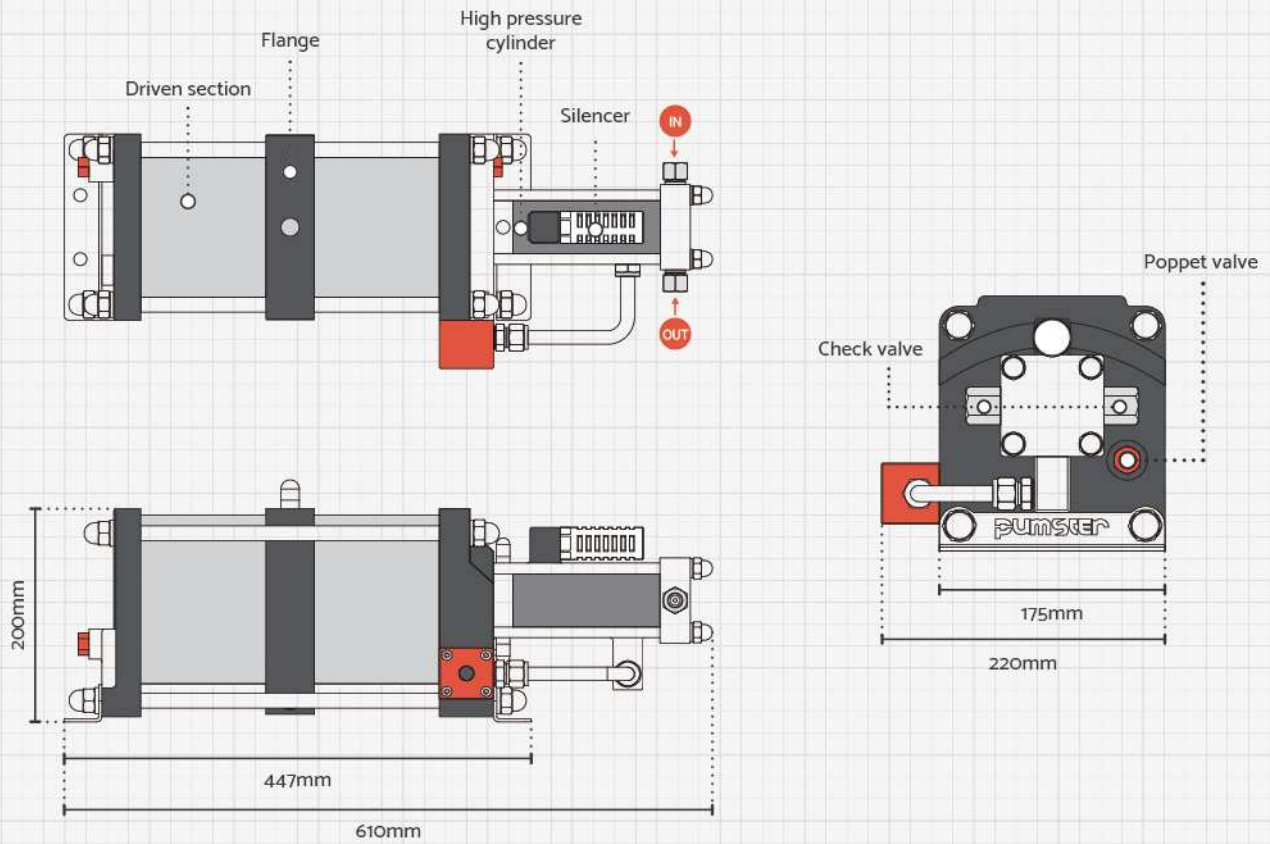
Single stage & Double driven

Gas Booster GB-SD is consists of single stage and double driven part.  
There are **3 types depending on compression ratio.**  
( compression ratio: 1 : 60 / 100 / 150 )



GB-SD

# SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-SD

# SPECIFICATION

※ Actual weight could be slightly different.

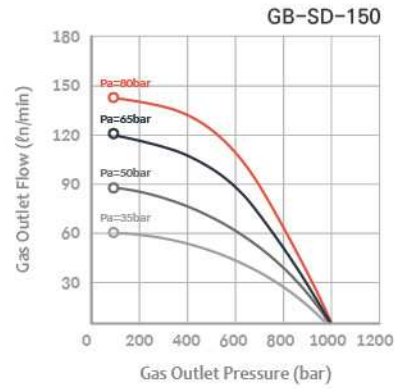
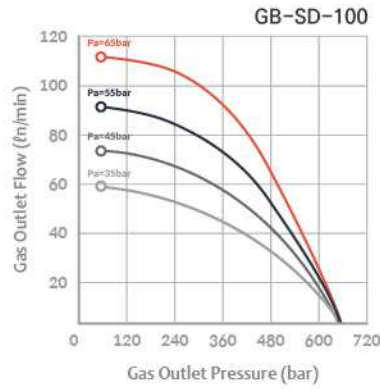
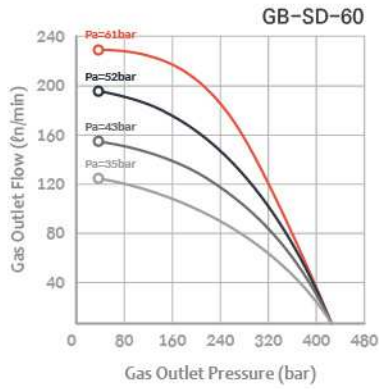
※ M.P(kg/㎥) = Ratio \* Air Drive Pressure(kg/㎥)

※ M.P is calculated with 7 bar(standardized air pressure).

Model	Ratio	Air Drive Pressure(kg/㎥)	Max. Pressure(kg/㎥)	Min.Suction Pressure(kg/㎥)	Connections		Flow rate (ℓn /min)	Weight (kg)
					Inlet	Outlet		
SD-60	1 : 60		420	28			635	20
SD-100	1 : 100	5~10	700	31	9/16" 18UNF	9/16" 18 UNF	370	20
SD-150	1 : 150		1,050	35			530	21

GB-SD

# PERFORMANCE CURVES



**Theoretical charging time formula**

Reservoir tank x atm = TAL  
 TAL / (Flow rate/sec) = total charging time

\* **Outlet pressure (Pb) = I·Pi**  
 (Outlet Pressure = Compression ratio · Air drive)

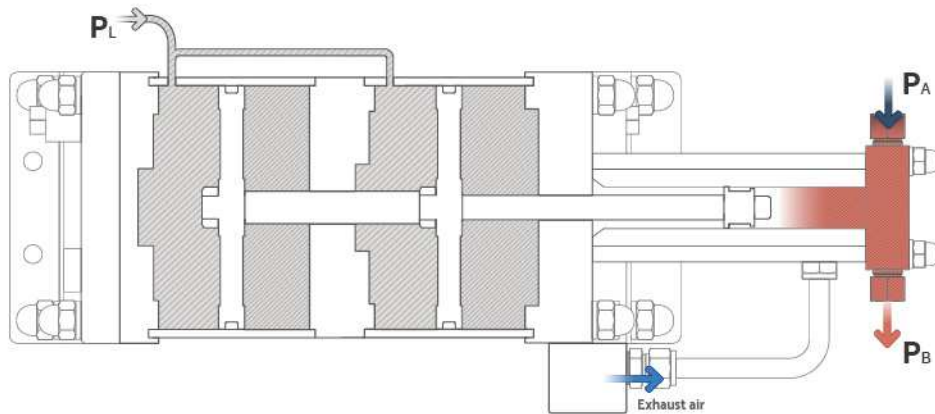
**Precautions**

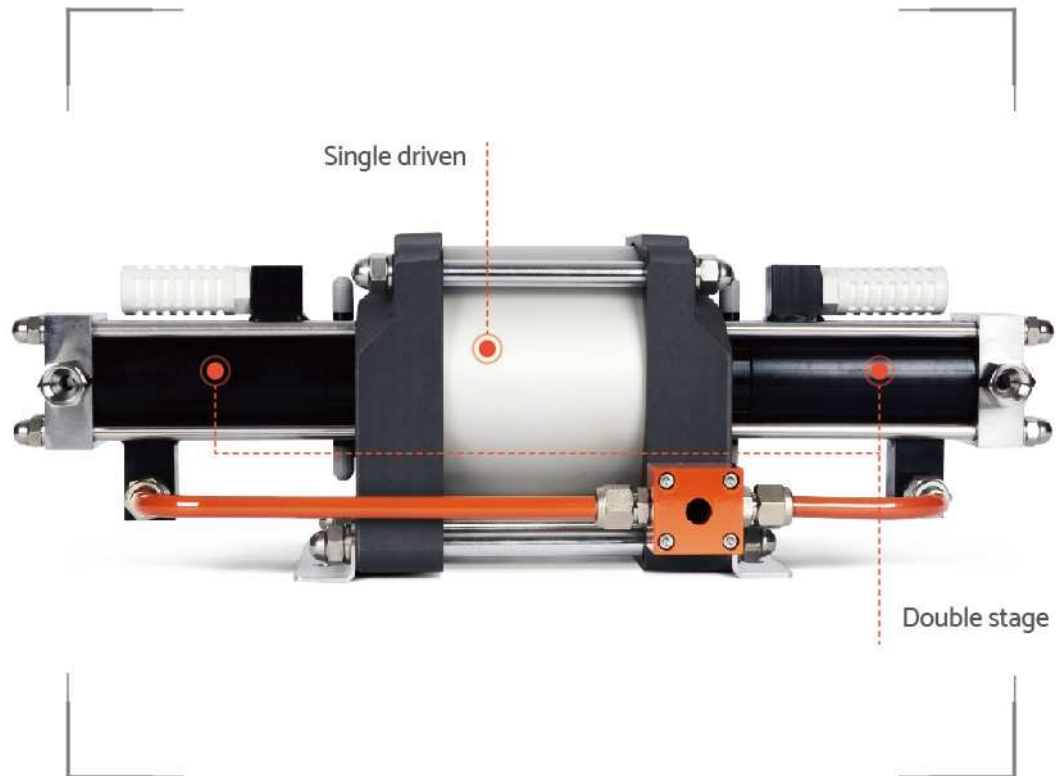
- There are lots of variables when increasing pressure under high pressure
- Driven part: driven air pressure, flow rate
- High pressure part: inflow gas pressure, feed rate
- Actual flow rate will be different depending on utility.

GB-SD

# OVERVIEW

PL - Air drive  
 PA - Suction gas  
 PB - Discharging gas





# GB-DS SERIES

Double stage & Single driven

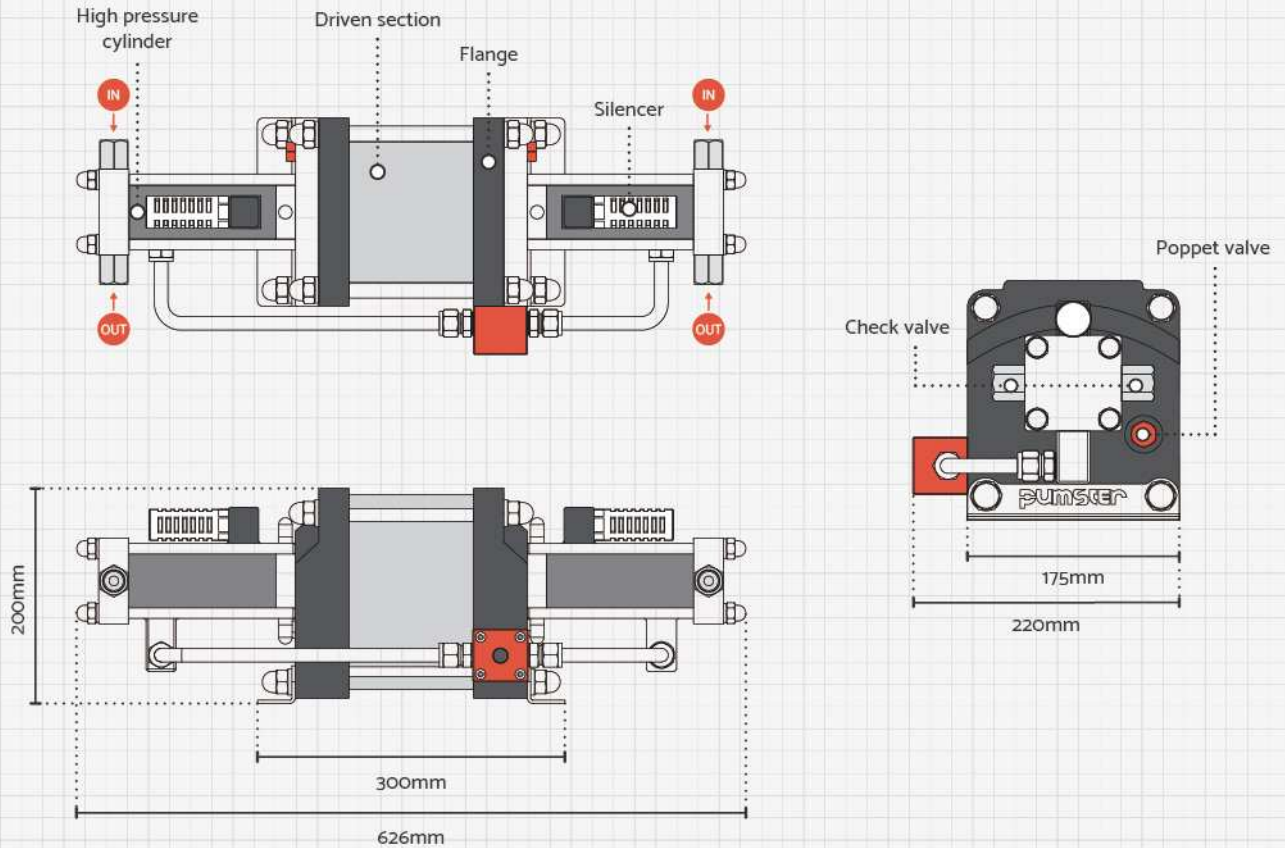
Gas Booster GB-DS is consists of double stage and single driven part.  
There are 5 types depending on compression ratio.  
( compression ratio: 1 : 7 / 14 / 30 / 50 / 75 )





GB-DS

SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-DS

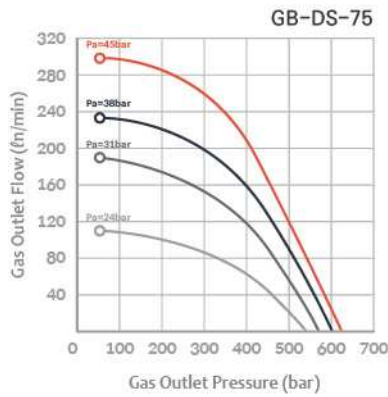
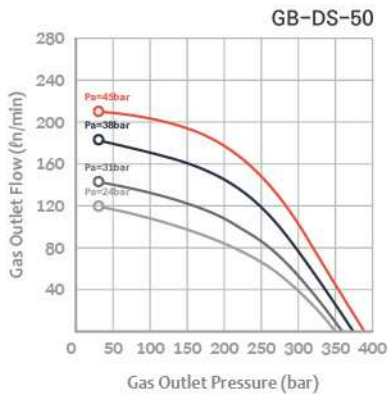
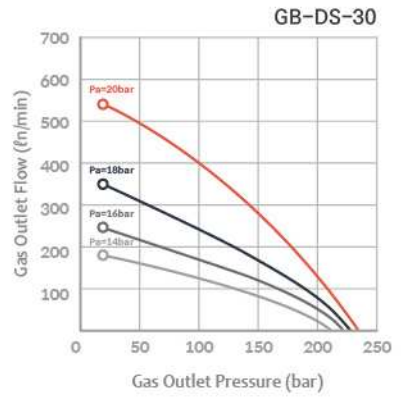
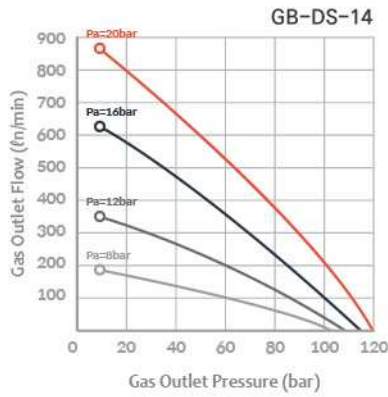
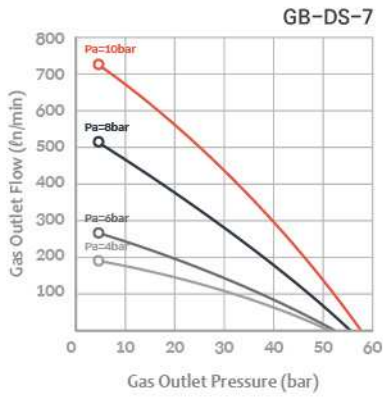
SPECIFICATION

※ Actual weight could be slightly different.  
 ※ M.P(kg/cm<sup>2</sup>) = Ratio \* Air Drive Pressure(kg/cm<sup>2</sup>)  
 ※ M.P is calculated with 7 bar(standardized air pressure).

Model	Ratio	Air Drive Pressure(kg/cm <sup>2</sup> )	Max. Pressure(kg/cm <sup>2</sup> )	Min.Suction Pressure(kg/cm <sup>2</sup> )	Connections		Flow rate (ℓn /min)	Weight (kg)
					Inlet	Outlet		
DS-7	1 : 7	5~10	49	4	1/2" PT	1/2" PT	3,180	19
DS-14	1 : 14		98	7			4,230	19
DS-30	1 : 30		210	14			2,470	20
DS-50	1 : 50	350	21	9/16" 18UNF	9/16" 18 UNF	1,130	21	
DS-75	1 : 75	525	35			1,300	21	

GB-DS

# PERFORMANCE CURVES



**Theoretical charging time formula**

Reservoir tank x atm = TAL  
 TAL / ( Flow rate/sec ) = total charging time

\* Outlet pressure (Pb) = I·PI  
 (Outlet Pressure = Compression ratio · Air drive)

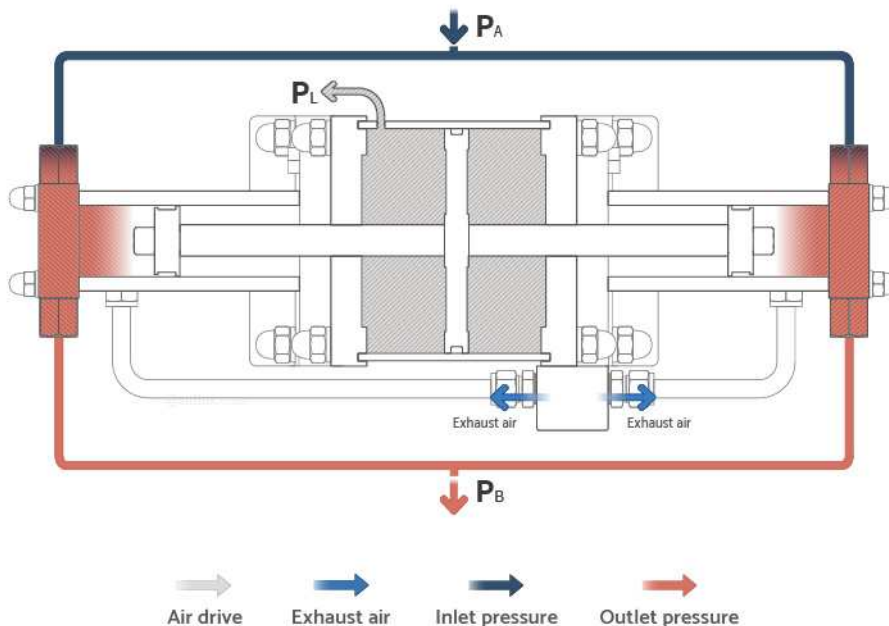
**Precautions**

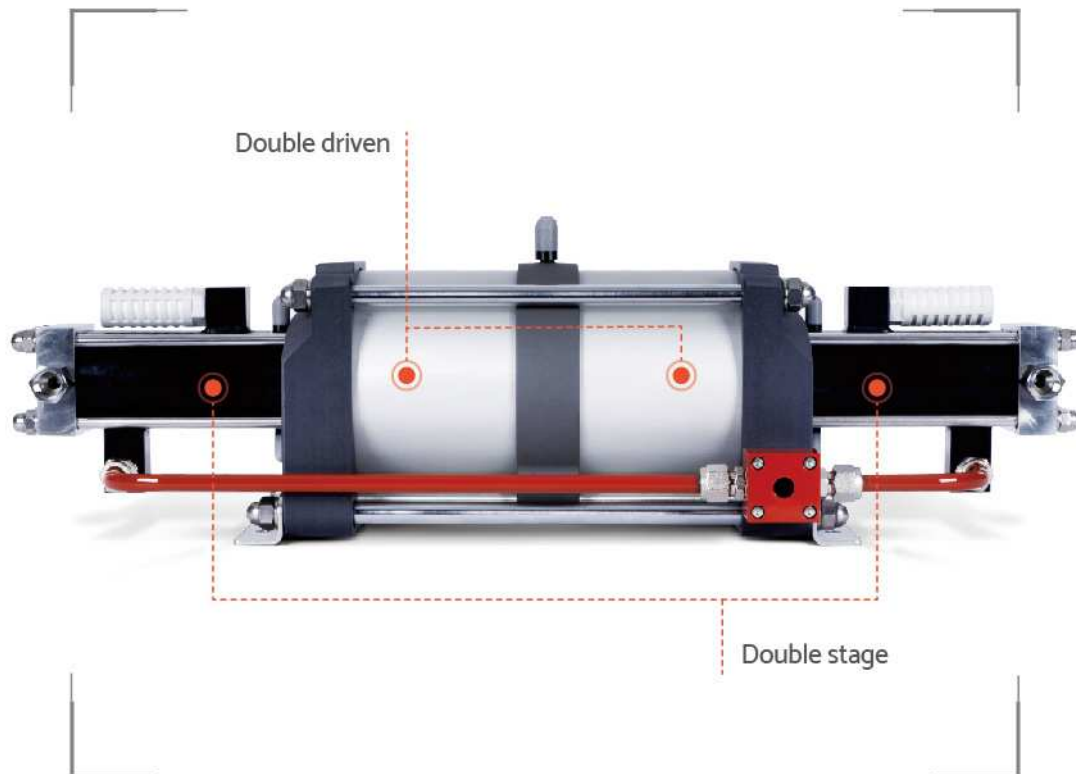
- There are lots of variables when increasing pressure under high pressure
- Driven part: driven air pressure, flow rate
- High pressure part: inflow gas pressure, feed rate
- Actual flow rate will be different depending on utility.

GB-DS

# OVERVIEW

PL - Air drive  
 PA - Suction gas  
 PB - Discharging gas





# GB-DD SERIES

## Double stage & Double driven

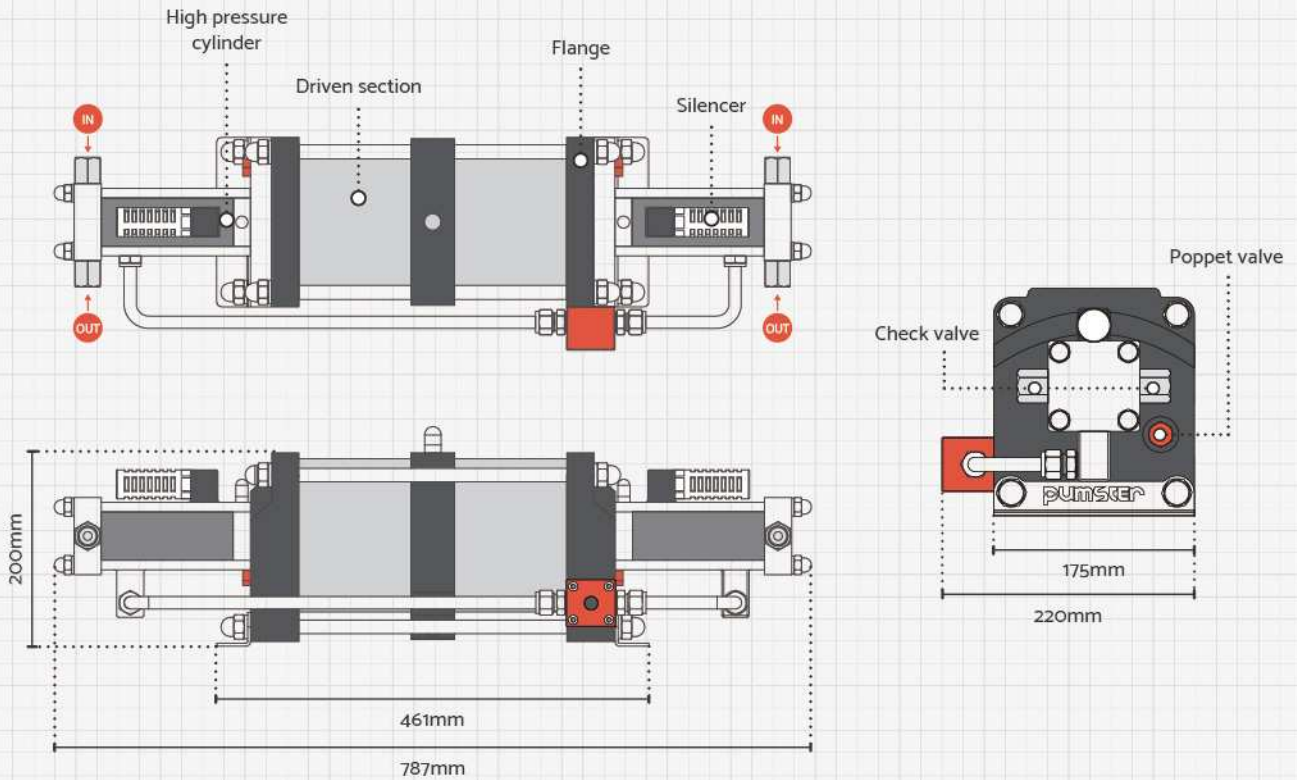
Gas Booster GB-DD is consists of double stage and double driven part.  
There are 5 types depending on compression ratio.  
( compression ratio: 1 : 14 / 28 / 60 / 100 / 150 )





GB-DD

SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-DD

SPECIFICATION

※ Actual weight could be slightly different.

※ M.P(kg/cm<sup>2</sup>) = Ratio \* Air Drive Pressure(kg/cm<sup>2</sup>)

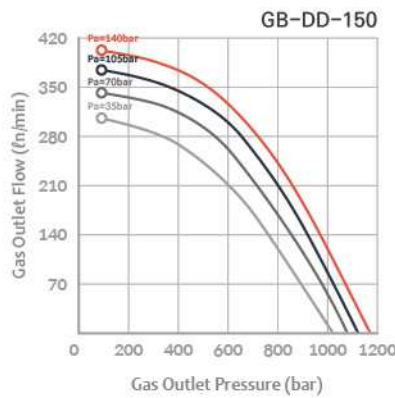
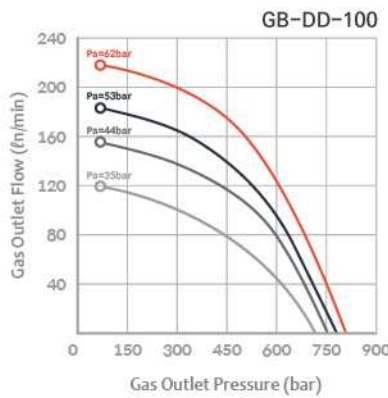
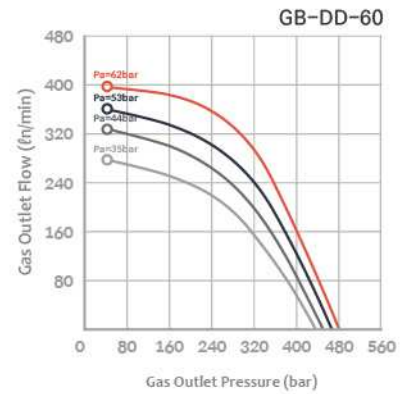
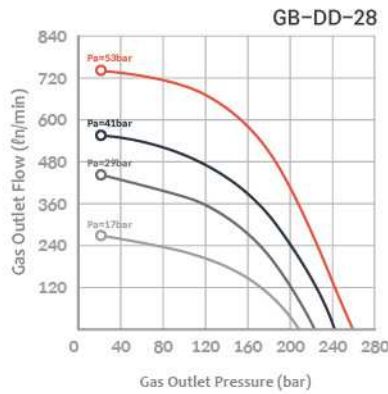
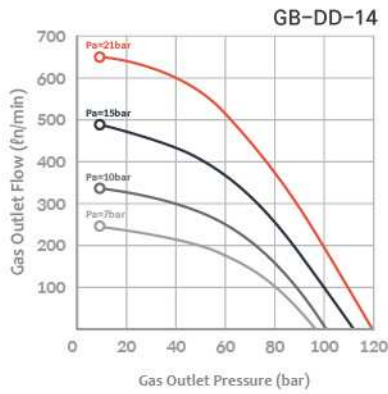
※ M.P is calculated with 7 bar(standardized air pressure).

Model	Ratio	Air Drive Pressure(kg/cm <sup>2</sup> )	Max. Pressure(kg/cm <sup>2</sup> )	Min.Suction Pressure(kg/cm <sup>2</sup> )	Connections		Flow rate (ℓn /min)	Weight (kg)
					Inlet	Outlet		
DD-14	1 : 14	5~10	98	7	1/2" PT	1/2" PT	6,000	23
DD-28	1 : 28		196	13			2,790	23
DD-60	1 : 60		420	28			2,050	24
DD-100	1 : 100		700	31	9/16" 18UNF	9/16" 18 UNF	1,130	25
DD-150	1 : 150		1,050	35			1,410	25



GB-DD

# PERFORMANCE CURVES



**Theoretical charging time formula**

Reservoir tank x atm = TAL  
 TAL / (Flow rate/sec) = total charging time

**\* Outlet pressure (Pb) = I-PI**  
 (Outlet Pressure = Compression ratio · Air drive)

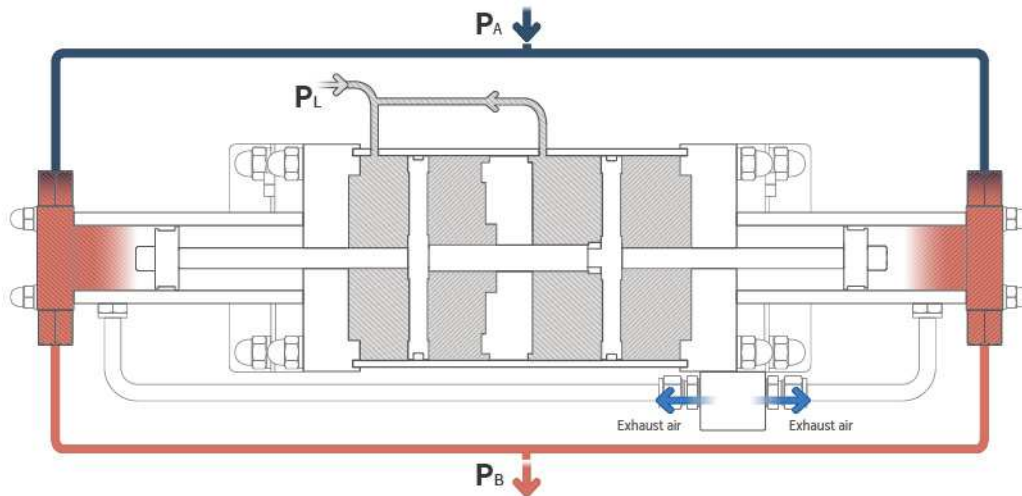
**Precautions**

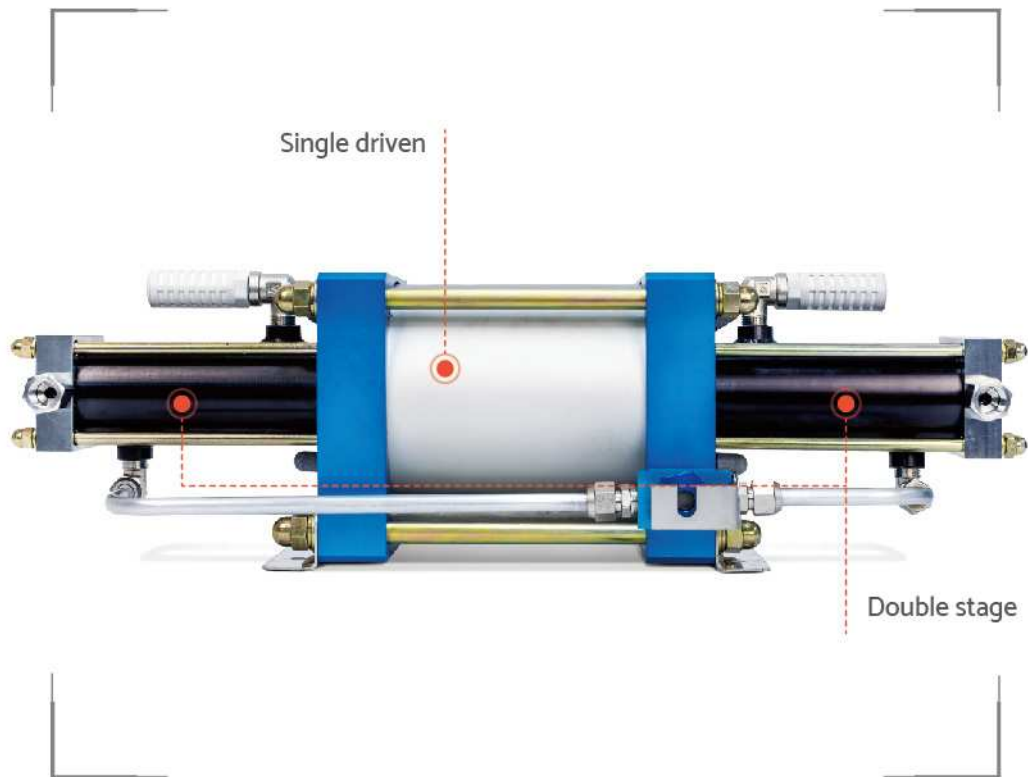
- There are lots of variables when increasing pressure under high pressure
- Driven part: driven air pressure, flow rate
- High pressure part: inflow gas pressure, feed rate
- Actual flow rate will be different depending on utility.

GB-DD

# OVERVIEW

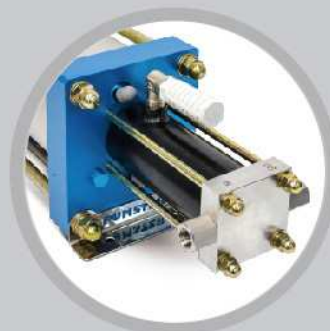
PL - Air drive  
 PA - Suction gas  
 Pb - Discharging gas





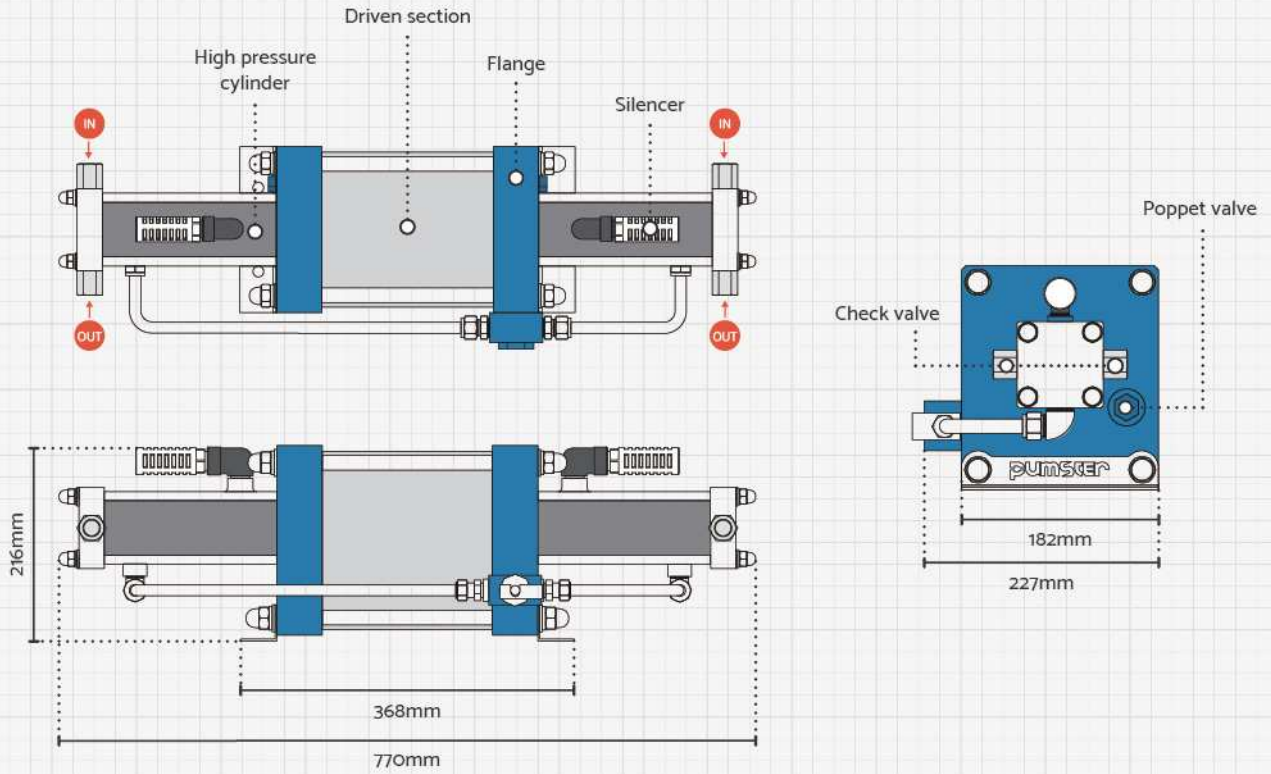
(160Φ)  
**GB-DS-7** SERIES  
Double stage & Single driven

Gas Booster GB-DS(160Φ) is a special model.  
It consists of double stage and single driven part.  
( compression ratio: 1 : 7 [Driven part 160Φ] )



GB-DS-7(160Φ)

# SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-DS-7(160Φ)

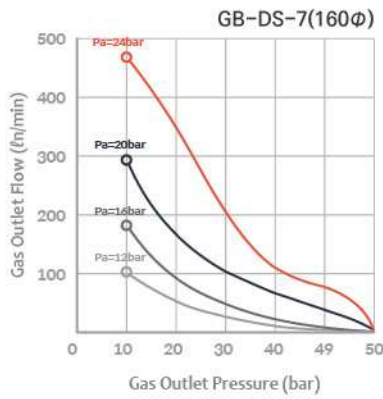
# SPECIFICATION

Model	Ratio	Air Drive Pressure(kg/cm <sup>2</sup> )	Max. Pressure(kg/cm <sup>2</sup> )	Min.Suction Pressure(kg/cm <sup>2</sup> )	Connections		Flow rate (tn /min)	Weight (kg)
					Inlet	Outlet		
GB-DS-7 (160Φ)	1 : 7	5~10	49	4	1/2" PT	1/2" PT	3,820	21

※ Actual weight could be slightly different.  
 ※ M.P(kg/cm<sup>2</sup>) = Ratio \* Air Drive Pressure(kg/cm<sup>2</sup>)  
 ※ M.P is calculated with 7 bar(standardized air pressure).

GB-DS-7(160Φ)

# PERFORMANCE CURVES



**Theoretical charging time formula**

Reservoir tank x atm = TAL  
 TAL / ( Flow rate/sec ) = total charging time

• **Outlet pressure (Pb) = I·PI**  
 (Outlet Pressure = Compression ratio · Air drive)

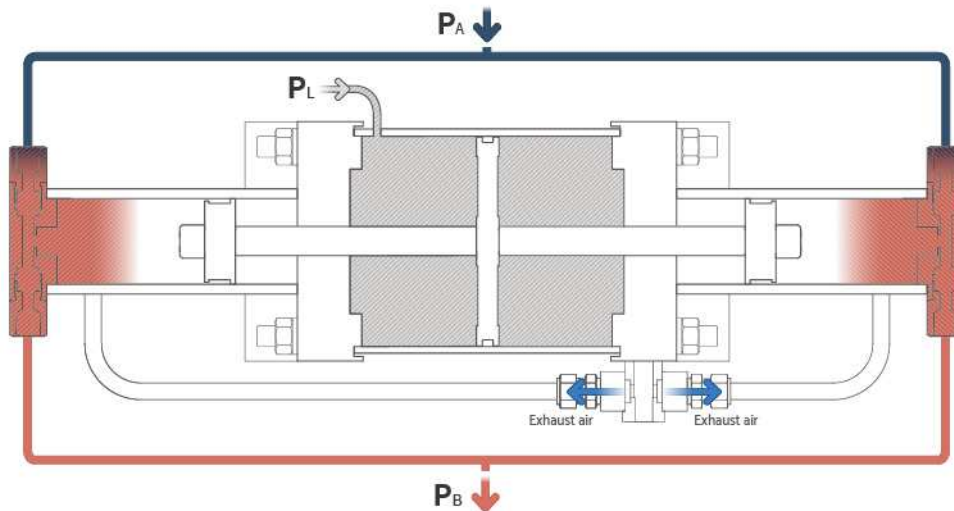
**Precautions**

- There are lots of variables when increasing pressure under high pressure
- Driven part: driven air pressure, flow rate
- High pressure part: inflow gas pressure, feed rate
- Actual flow rate will be different depending on utility.

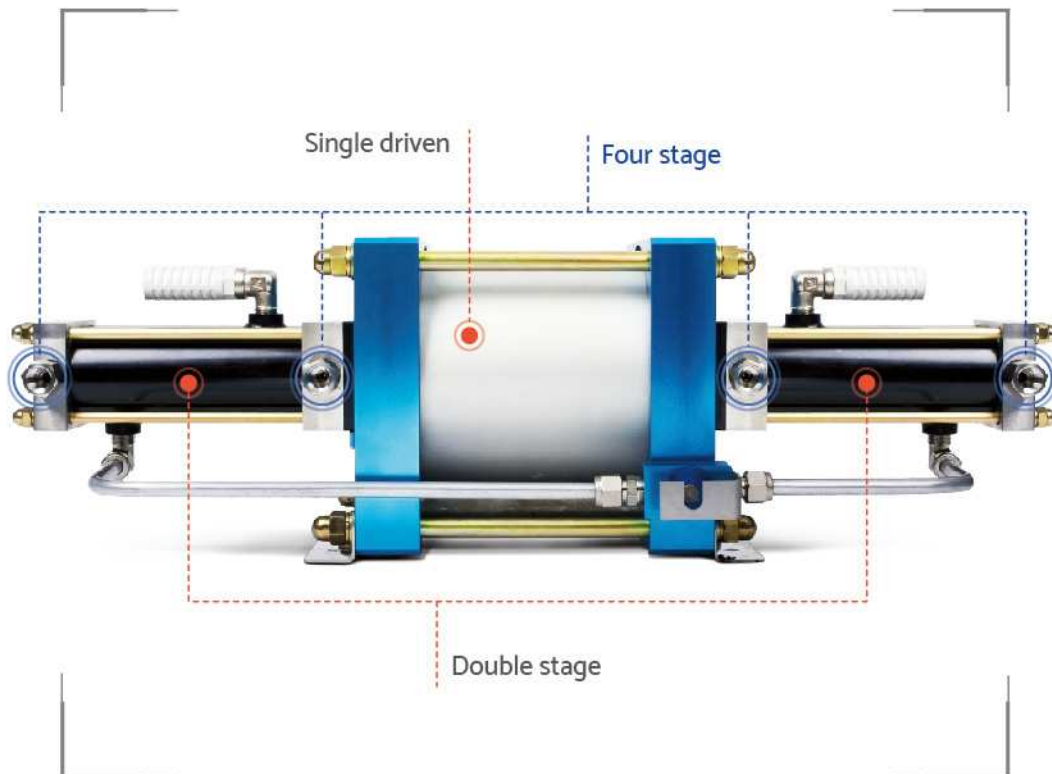
GB-DS-7(160Φ)

# OVERVIEW

PL - Air drive  
 PA - Suction gas  
 PB - Discharging gas







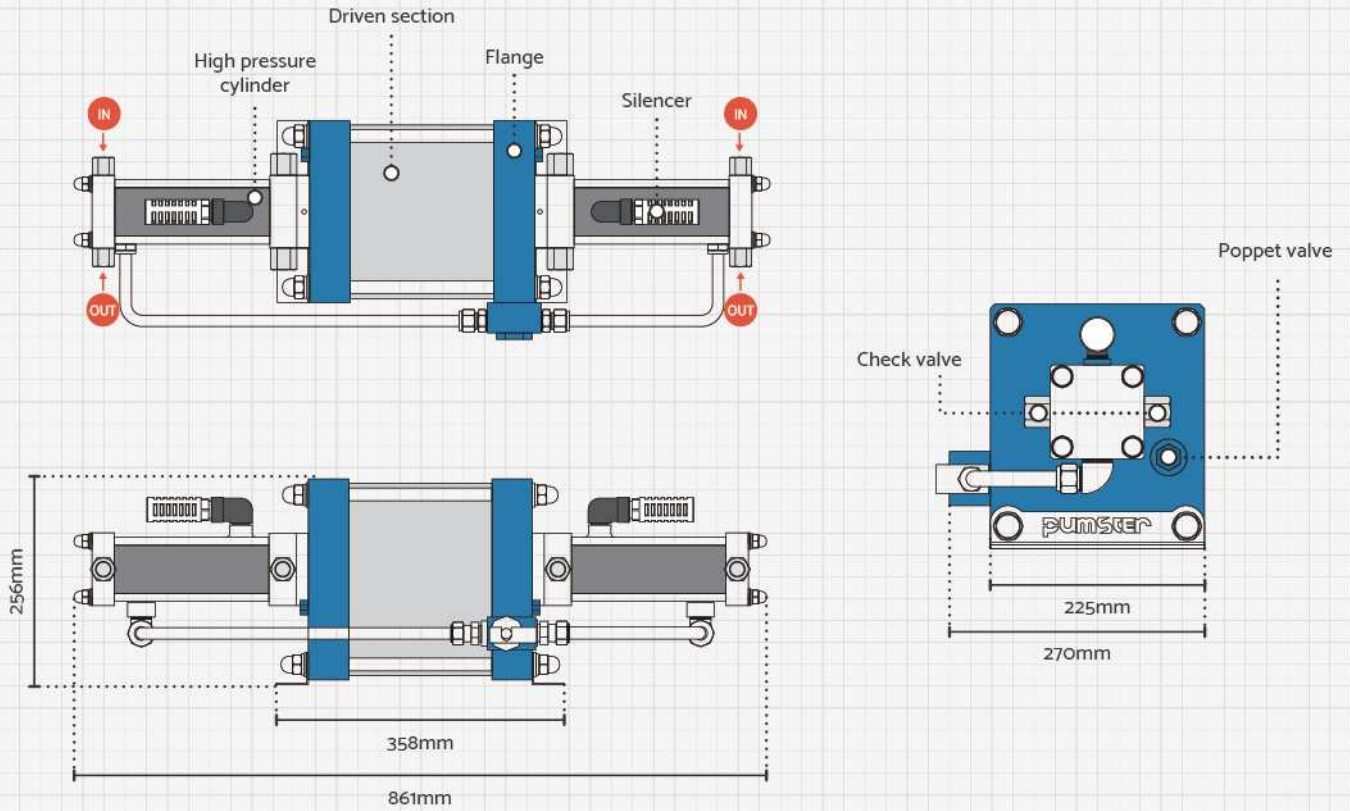
(200Φ)  
**GB-QS-7** SERIES  
 Four stage & Single driven

Gas Booster GB-QS(200Φ) is a special model.  
 It consists of double stage (four displacement flow part)  
 and single driven part.  
 ( compression ratio: 1 : 7 [Driven part 200Φ] )



GB-QS-7(200Φ)

# SIZE / PART NAME



※ Please contact sales staff if you need further assistance.

GB-QS-7(200Φ)

# SPECIFICATION

Model	Ratio	Air Drive Pressure(kg/cm <sup>2</sup> )	Max. Pressure(kg/cm <sup>2</sup> )	Min.Suction Pressure(kg/cm <sup>2</sup> )	Connections		Flow rate (ℓn /min)	Weight (kg)
					Inlet	Outlet		
GB-QS-7 (200Φ)	1:7	5~10	49	4	1/2" PT	1/2" PT	4,200	40

※ Actual weight could be slightly different.  
 ※ M.P(kg/cm<sup>2</sup>) = Ratio \* Air Drive Pressure(kg/cm<sup>2</sup>)  
 ※ M.P is calculated with 7 bar(standardized air pressure).