

SC Hydraulic Engineering – 13360 Telge Rd #606 Cypress Texas USA – Tel 832 277 1182 – www.hydrorex.com.com
Manufactured in the United States



Designers and Manufacturers of Hydraulic and Pneumatic Equipment

SC HYDRAULIC ENGINEERING CORPORATION

AIR OPERATED GAS BOOSTERS & SYSTEMS



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GAS BOOSTER

REFERENCE INFORMATION

(see performance curves for operating conditions)

Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GB-15	2,250 psig 155 bar	2,250 psig 155 bar	1/4" NPT 1/4" NPT	15 Pa	50 psi (3.5 bar)	7.05
GB-30	4,500 psig 310 bar	4,500 psig 310 bar	1/4" NPT 1/4" NPT	30 Pa	100 psig (7 bar)	3.1
GB-75	6,000 psig 410 bar	11,250 psig 775 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa	250 psig (17 bar)	1.2
GB-D30	6,000 410 bar	9,000 620 bar	1/4" NPT 1/4" NPT	60 Pa	200 psig (13 bar)	3.1
GB-D75	6,000 410 bar	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa	250 psig (17 bar)	1.2
GBD-5	1500 psig 103 bar	1500 103 bar	1/2" NPT 1/2" NPT	4.7 Pa +Ps	25 psig	28.2
GBD-15	5,000 psig 345 bar	5,000 psig 345 bar	1/4" NPT 1/4" NPT	15 Pa + Ps	50 psi (3.5 bar)	14.1
GBD-30	6,000 psig 410 bar	9,000 psig 620 bar	1/4" NPT 1/4" NPT	30 Pa + Ps	100 psig (7 bar)	6.3
GBD-75	6,000 psig 410 bar	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa + Ps	250 psig (17 bar)	2.4
GBD-D15	5,000 psig 345 bar	5,000 psig 345 bar	1/4" NPT 1/4" NPT	30 Pa + Ps	50 psi (3.5 bar)	14.1
GBD-D30	6,000 psig 410 bar	9,000 psig 620 bar	1/4" NPT 1/4" NPT	60 Pa + Ps	200 psig (14 bar)	6.3
GBD-D75	6,000 psig 410 bar	25,000 psig 1,725 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa + Ps	250 psig (17 bar)	2.4
GBT-15/30	15 Pa to 2500 psig ⁽²⁾	9,000 psig 620 bar	1/4" NPT 1/4" NPT	30 Pa +2 Ps	50 psi (3.5 bar)	7.05
GBT-15/75	3.5 Pa to 5000 psig ⁽²⁾	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa + 5 Ps	50 psi (3.5 bar)	7.05
GBT-30/75	20 Pa to 6000 psig ⁽²⁾	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa + 2.5 Ps	100 psig (7 bar)	3.1
GBT-D15/30	30 Pa to 2500 psig ⁽²⁾	9,000 psig 620 bar	1/4" NPT 1/4" NPT	60 Pa +2 Ps	100 psig (7 bar)	7.05
GBT-D15/75	7 Pa to 5000 psig ⁽²⁾	25,000 psig 1,725 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa + 5 Ps	100 psig (7 bar)	6.3
GBT-D30/75	40 Pa to 3600 psig ⁽²⁾	25,000 psig 1,725 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa + 2.5 Ps	100 psig (7 bar)	3.1

(1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.

(2) GBT Series Gas Boosters: Limit maximum gas supply pressure by formula $P_s \text{ max} = \text{factor} * P_a$ to avoid interstage stall (for example, for gas booster model GBT- 15/30 the formula is: $P_s \text{ max} = 15 * P_a$).

3. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).

4. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: Static Outlet Stall Pressure = $30 * P_a + P_s$).

5. Maximum recommended air drive operating pressure: 100-psi.

6. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).

7. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.

8. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.

9. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

Legend
Pa = Drive Pressure
P _s = Gas Inlet Pressure
P _o = Gas Outlet Pressure

Selecting the Right Booster for Your Application

We could fill several pages of formulas, tables, and explanations of how to determine the best, most economical booster for your application.

After plowing through all the information, including types of gas, decaying supply versus constant, displacement factors, volumetric efficiencies and compression ratios, just to name a few, you may still wonder if you are making the right choice.

At SC Hydraulic Engineering we have a better way -

CALL US!

Or better yet take a minute to read the glossary of terms below so you know the information we need, then fill out the data worksheet on the next page and fax (714-257-4810) or e-mail (service@schydraulic.com) the information to us. We'll have an answer for you within a couple of hours with a selection of boosters, fill times if required, pricing, delivery time, and the name of your nearest distributor.

We figure you have better things to do with your time besides doing our job. For the best service in the industry, call **SC Hydraulic Engineering**.

GLOSSARY OF TERMS

Pa (Air Drive Pressure)

Pressure from air/gas compressor available at the booster to drive the unit. If the pressure fluctuates, the lowest pressure available is used to calculate the output gas pressure. The Pa, and in some selections, along with the supply pressure will determine the maximum stall pressure of the booster.

Va (Air Drive Flow)

Volume of air/gas measured in SCFM (standard cubic feet per minute) available to drive the unit. The volume of air/gas determines the speed in which the booster will cycle and therefore the volume delivered from the outlet port. The volume of outlet gas also determines the speed in which a vessel is filled to a static pressure.

CPM (Air Drive Speed)

Cycles per minute when operating the booster, which is determined by the volume of drive air/gas available. The CPM is highest when starting to fill a vessel and decreases as the output pressure increases until reaching the static or stall pressure.

Ps (Gas Supply Pressure)

Pressure of the gas from the supply source. If the supply is from a gas generator or very large source, the Ps may be considered constant. If from a smaller source, typically bottles, the Ps will decrease as the supply is used. The decrease in supply will affect the static pressure output (in certain boosters) and the fill time or SCFM of the output.

Vs (Gas Supply Volume)

Volume of the gas available from the supply source. This is measured not by SCFM but by ACF (actual cubic feet) or water volume of the source. If the supply is from a gas generator or very large source, the Vs may be considered unlimited. The ACF of the supply determines how many fills to a certain static pressure can be made until the source is depleted.

Po (Gas Outlet Stall Pressure)

Pressure of the gas at the outlet. This can be stated as an output pressure at a certain SCFM or as the static output stall pressure when filling a vessel.

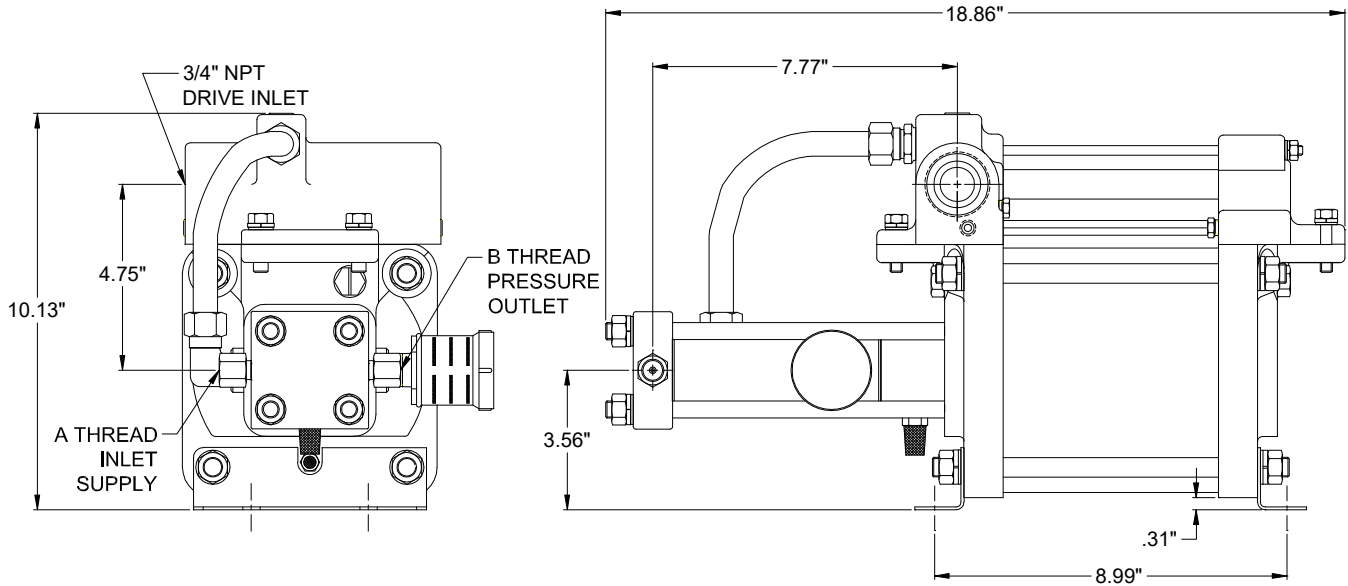
Vo (Gas Outlet Flow)

The volume of gas delivered at the outlet port measured in SCFM. This can be converted to ACFM if the temperature of the output gas is known using the formula: $ACFM = SCFM \times 14.696 / (Pa + 14.696) \times \text{degrees F.} / 530$

GB SERIES

Single Stage-Single Acting Booster

The GB series is the most economical of the SC Hydraulic Gas Boosters and is ideal for applications not requiring much volume such as pressure testing small vessels or components. Pressures can be boosted from as low as 50 psig and up to over 11,000 psig.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GB-15	2,250 psig 155 bar	2,250 psig 155 bar	1/4" NPT 1/4" NPT	15 Pa	50 psig (3.5 bar)	7.05
GB-30	4,500 psig 310 bar	4,500 psig 310 bar	1/4" NPT 1/4" NPT	30 Pa	100 psig (7 bar)	3.1
GB-75	6,000 psig 410 bar	11,250 psig 775 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa	250 psig (17 bar)	1.2

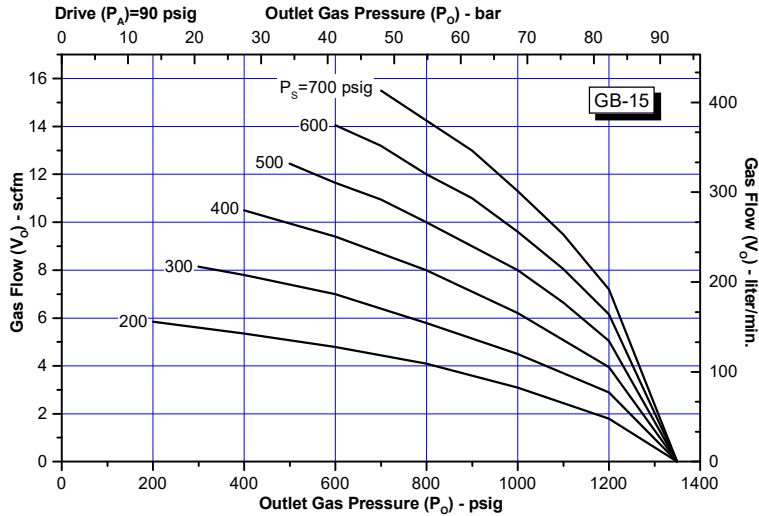
- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
2. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
3. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: Static Outlet Stall Pressure = 30*Pa+Ps).
4. Maximum recommended air drive operating pressure: 100-psi.
5. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
6. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
7. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
8. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

For assistance in selecting the proper Gas Booster complete and fax the data work sheet or e-mail inquires to service@schydraulic.com

GB SERIES

Single Stage-Single Acting Booster

GB-15



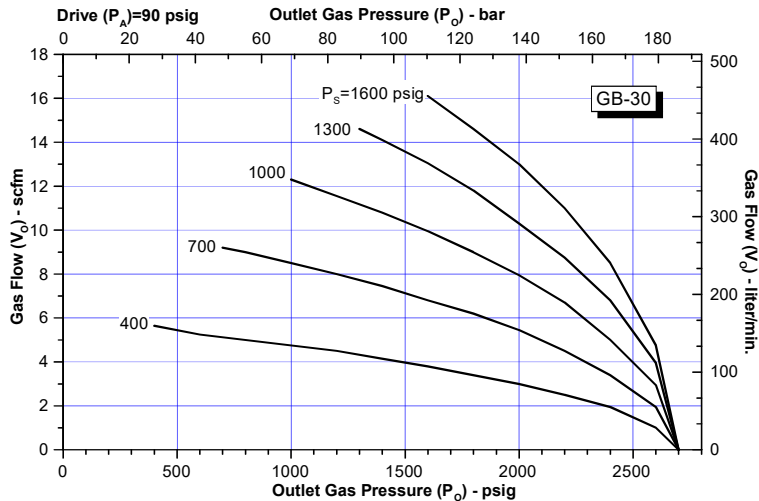
Legend

PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow

NOTE:
 Performance charts are for reference only.

The curves are based on an Air Drive (P_A) of 90 psig and a maximum air consumption of 72-scfm. If the P_A is higher or lower, the Outlet gas pressure (P_o) can change significantly.

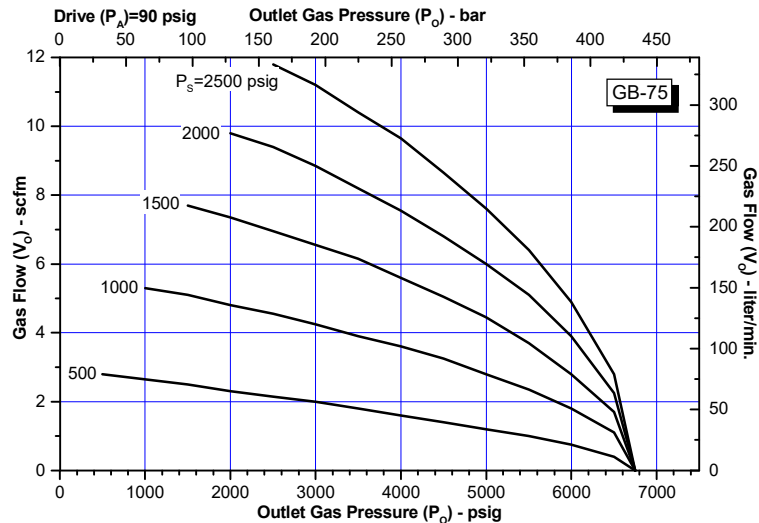
GB-30



Also, the supply pressures (P_s) shown in the graphs are based on constant pressure being supplied as the pressure is boosted. A supply from cylinders or bottles will affect the pressure outlet (P_o) and flow (V_o) as the supply pressure (P_s) is depleted.

Contact SC Hydraulic Engineering for detailed performance data on any

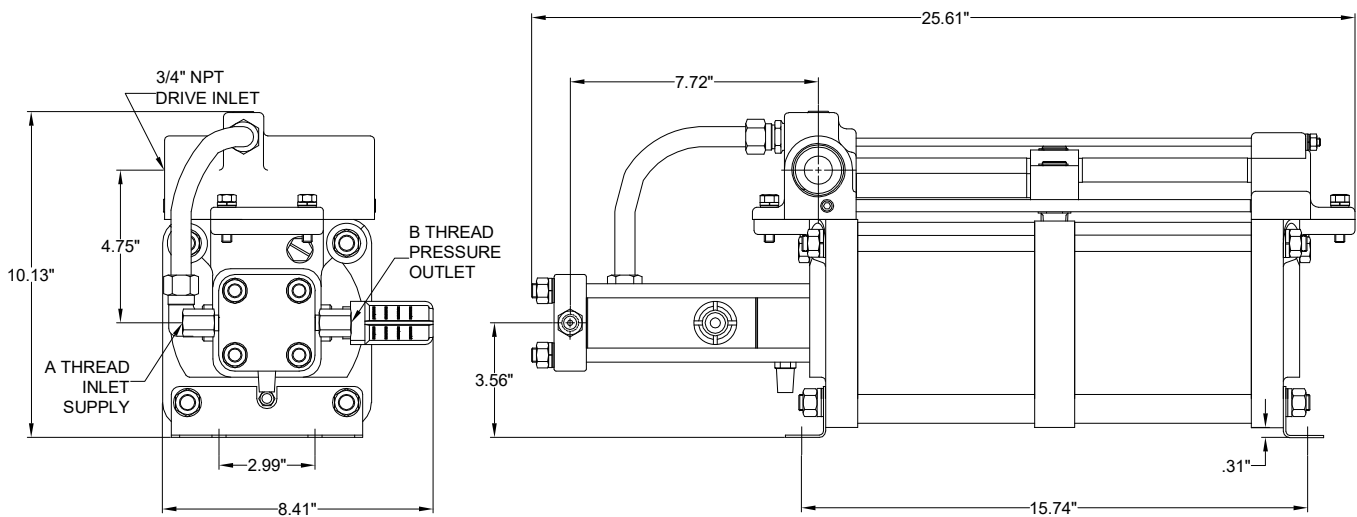
GB-75



GB-D SERIES

Single Stage-Single Acting Double Head Booster

This series has the same characteristics of the standard GB Series however the double head allows half the input pressure to achieve the same outlet pressure.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in ³ per cycle)
GB-D30	6,000 410 bar	9,000 620 bar	1/4" NPT 1/4" NPT	60 Pa	200 psig (13 bar)	3.1
GB-D75	6,000 410 bar	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa	250 psig (17 bar)	1.2

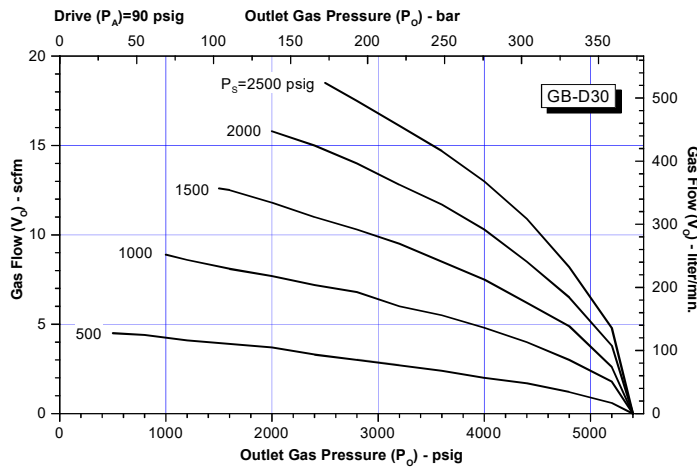
- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
2. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
3. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: Static Outlet Stall Pressure = 30*Pa+Ps).
4. Maximum recommended air drive operating pressure: 100-psi.
5. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
6. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
7. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
8. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

For assistance in selecting the proper Gas Booster complete and fax the data work sheet or e-mail inquires to service@schydraulic.com

GB-D SERIES

Single Stage-Single Acting Double Head Booster

GB-D30



Legend

PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow

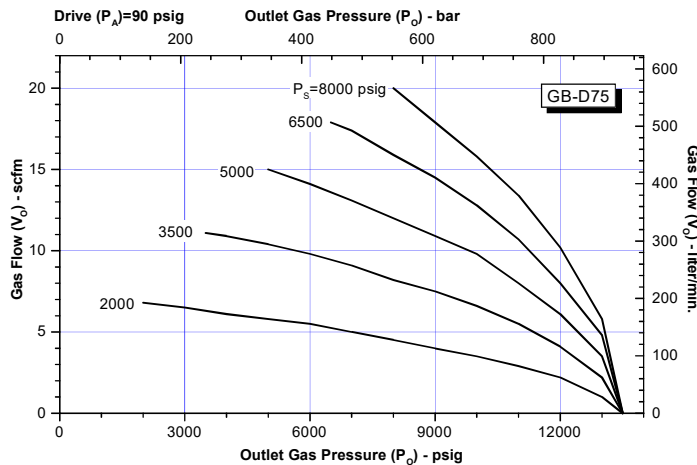
NOTE:
 Performance charts are for reference only.

The curves are based on an Air Drive (P_a) of 90 psig and a maximum air consumption of 72-scfm. If the P_a is higher or lower, the Outlet gas pressure (P_o) can change significantly.

Also, the supply pressures (P_s) shown in the graphs are based on constant pressure being supplied as the pressure is boosted. A supply from cylinders or bottles will affect the pressure outlet (P_o) and flow (V_o) as the supply pressure (P_s) is depleted.

Contact SC Hydraulic Engineering for detailed performance data on any

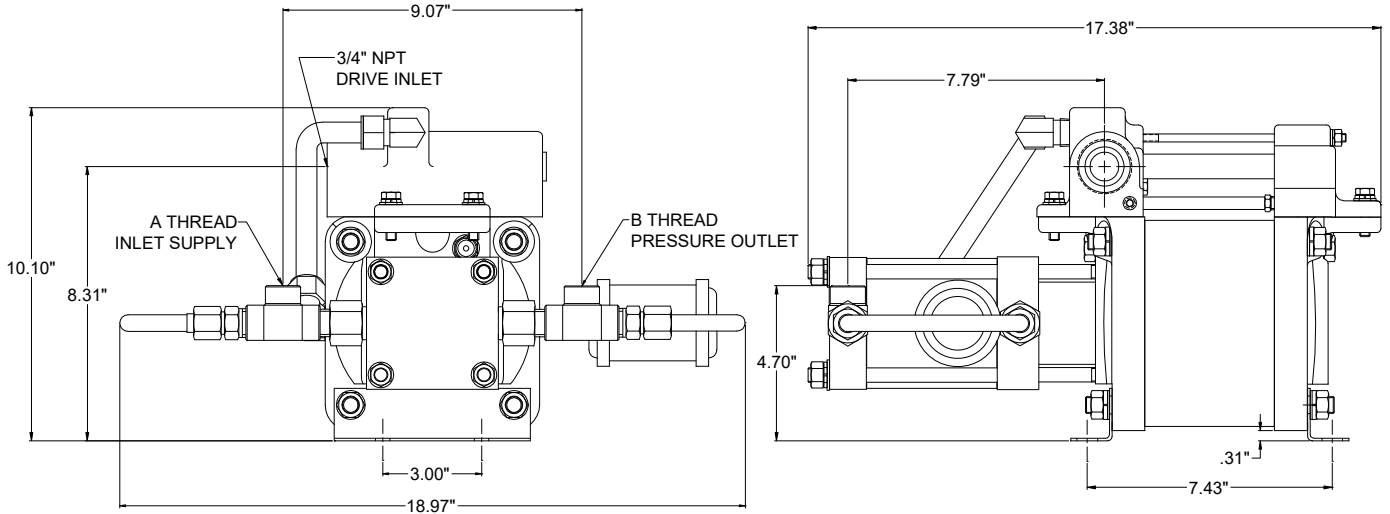
GB-D75



GBD-5

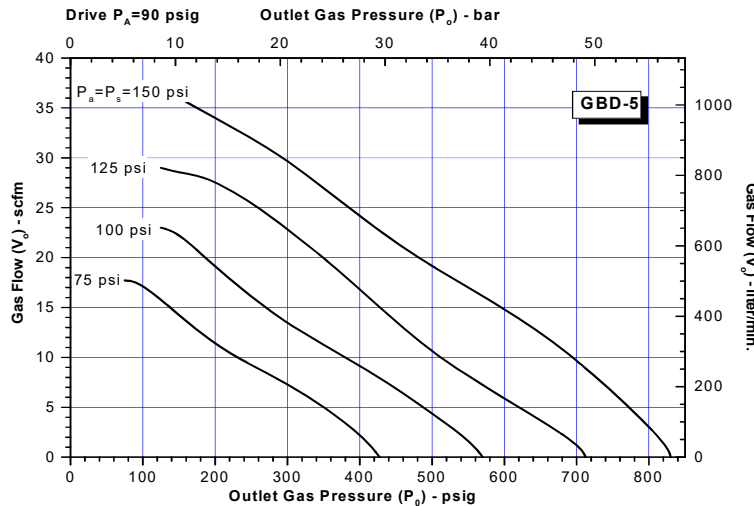
Single Stage-Double Acting Booster

This gas booster is a modified version of our popular ABD air booster. It is used to boost gas pressures up to 1,500 psig. The booster is able to move large volumes of gas efficiently when lower pressures are suitable. For convenience, the graph illustrates various inlet gas supplies with matching air drive pressures.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GBD-5	1500 psig 103 bar	1500 103 bar	1/2" NPT 1/2" NPT	4.7 Pa +Ps	25 psig	28.2

Legend
 PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow



GBD-5

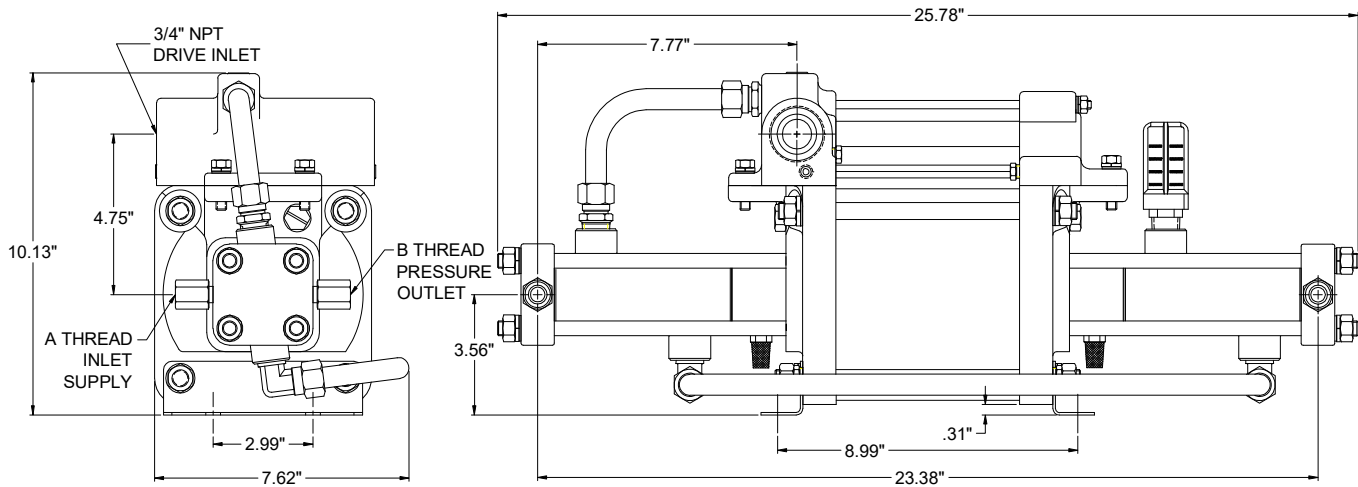
See **NOTE** on Page 13 regarding Performance Charts

For assistance in selecting the proper Gas Booster complete and fax the data work sheet or e-mail inquires to service@schydraulic.com

GBD SERIES

Single Stage-Double Acting Booster

This series of boosters doubles the volume of output gas per cycle and is a good choice for moving relatively high volumes at pressures up to 20,000 psig. Supply pressure is added to the maximum outlet pressure.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GBD-15	5,000 psig 345 bar	5,000 psig 345 bar	1/4" NPT 1/4" NPT	15 Pa + Ps	50 psig (3.5 bar)	14.1
GBD-30	6,000 psig 410 bar	9,000 psig 620 bar	1/4" NPT 1/4" NPT	30 Pa + Ps	100 psig (7 bar)	6.3
GBD-75	6,000 psig 410 bar	20,000 psig 1,380 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	75 Pa + Ps	250 psig (17 bar)	2.4

- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
2. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
3. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: Static Outlet Stall Pressure = 30*Pa+Ps).
4. Maximum recommended air drive operating pressure: 100-psi.
5. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
6. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
7. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
8. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

For assistance in selecting the proper Gas Booster complete and fax
the data work sheet or e-mail inquires to service@schydraulic.com

GBD SERIES

Single Stage-Double Acting Booster

Legend

PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow

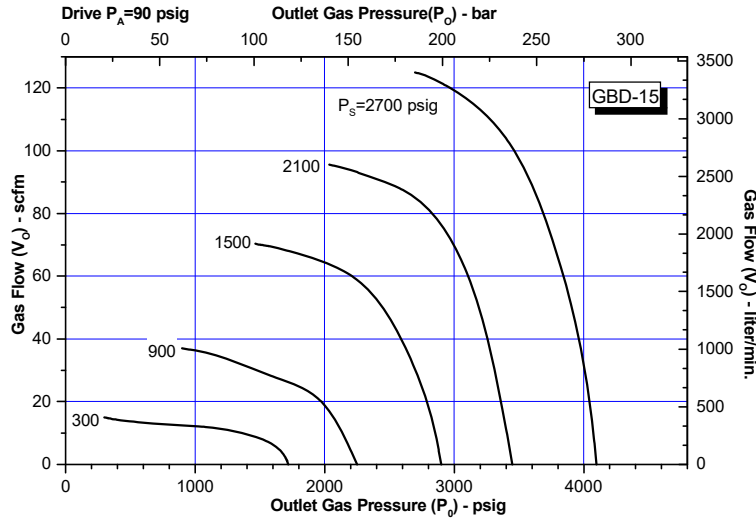
NOTE:

Performance charts are for reference only.

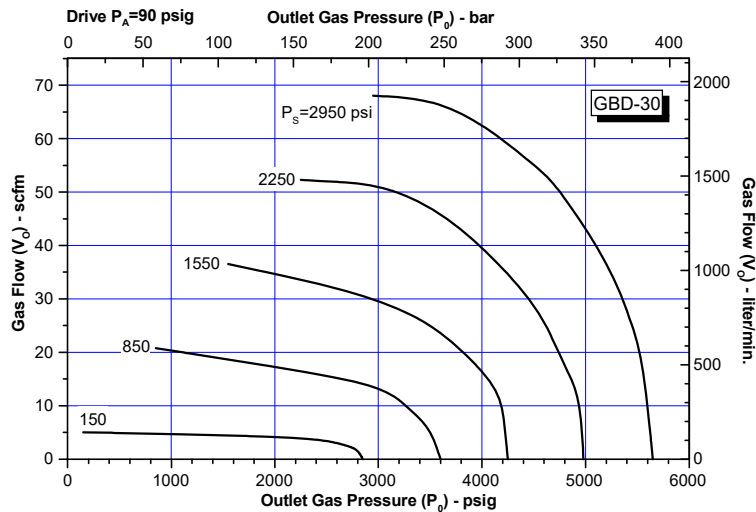
The curves are based on an Air Drive (Pa) of 90 psig and a maximum air consumption of 72-scfm. If the Pa is higher or lower, the Outlet gas pressure (Po) can change significantly.

Also, the supply pressures (Ps) shown in the graphs are based on constant pressure being supplied as the pressure is boosted. A supply from cylinders or bottles will affect the pressure outlet (Po) and flow (Vo) as the supply pressure (Ps) is depleted.

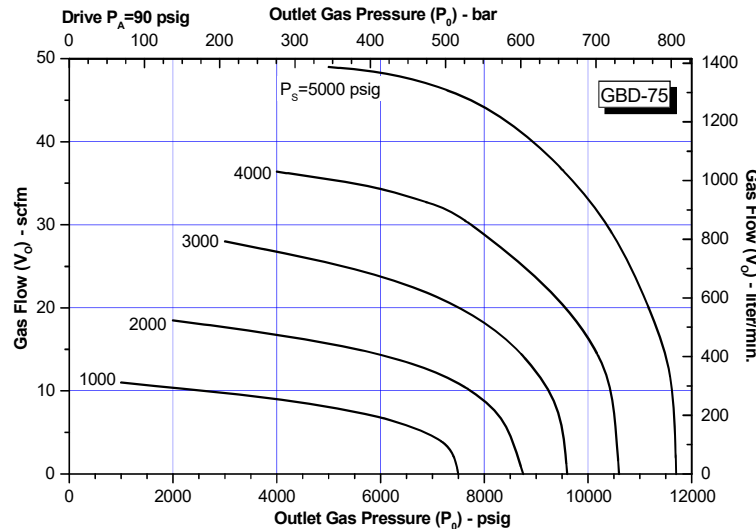
Contact SC Hydraulic Engineering for detailed performance data on any



GBD-15



GBD-30

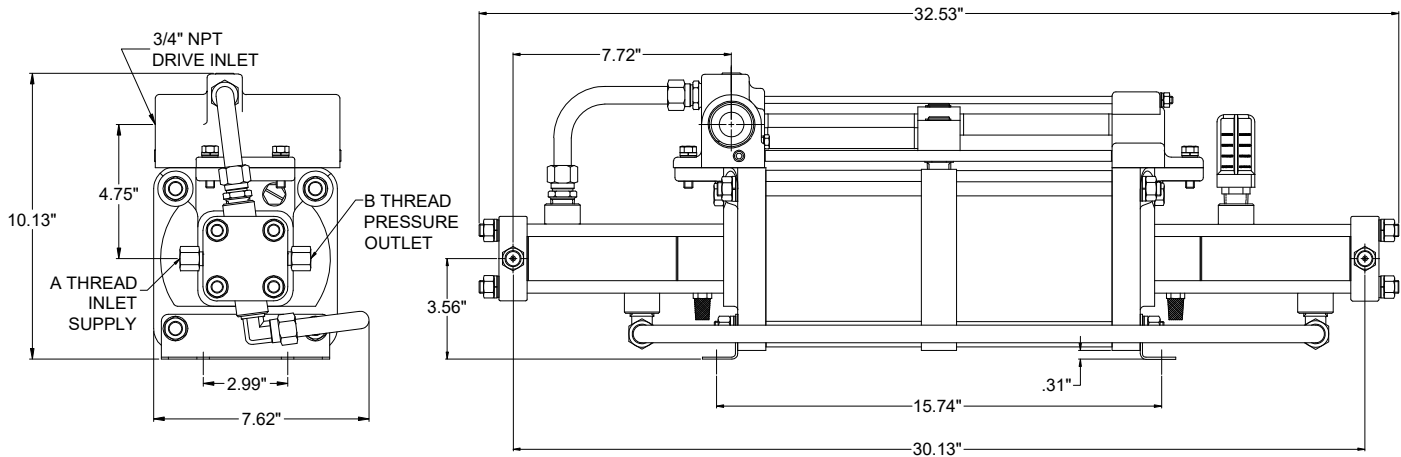


GBD-75

GBD-D SERIES

Double Acting-Double Head Booster

This series has the same characteristics of the standard GBD however the double head allows half the input pressure to achieve the same outlet pressure.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GBD-D15	5,000 psig 345 bar	5,000 psig 345 bar	1/4" NPT 1/4" NPT	30 Pa + Ps	50 psig (3.5 bar)	14.1
GBD-D30	6,000 psig 410 bar	9,000 psig 620 bar	1/4" NPT 1/4" NPT	60 Pa + Ps	200 psig (14 bar)	6.3
GBD-D75	6,000 psig 410 bar	25,000 psig 1,725 bar	9/16"-18 ⁽¹⁾ 9/16"-18 ⁽¹⁾	150 Pa + Ps	250 psig (17 bar)	2.4

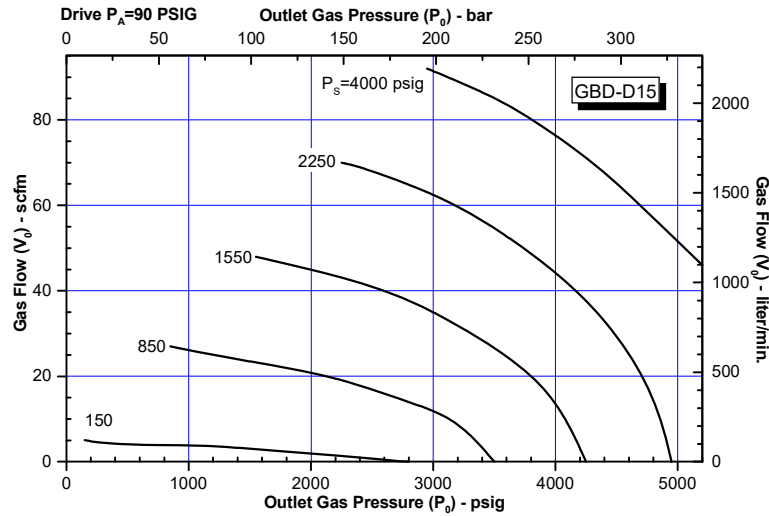
- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
2. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
3. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: Static Outlet Stall Pressure = 30*Pa+Ps).
4. Maximum recommended air drive operating pressure: 100-psi.
5. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
6. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
7. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
8. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

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GBD-D SERIES

Double Acting-Double Head Booster

Legend
 PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow



GBD-D15

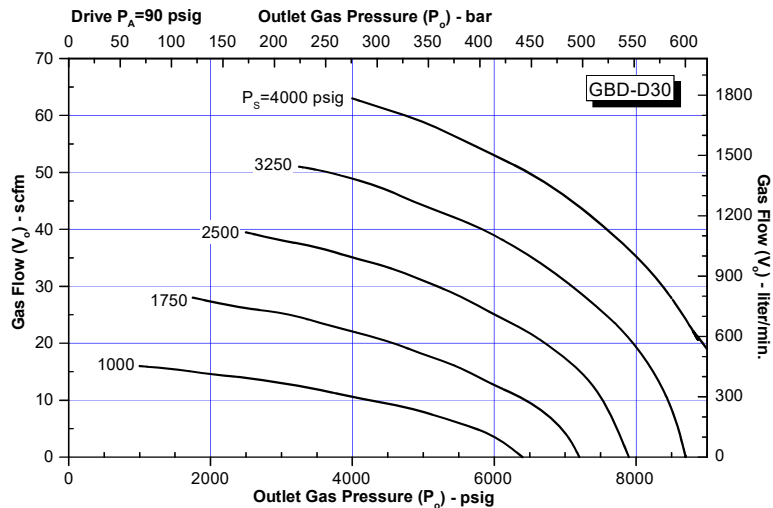
NOTE:

Performance charts are for reference only.

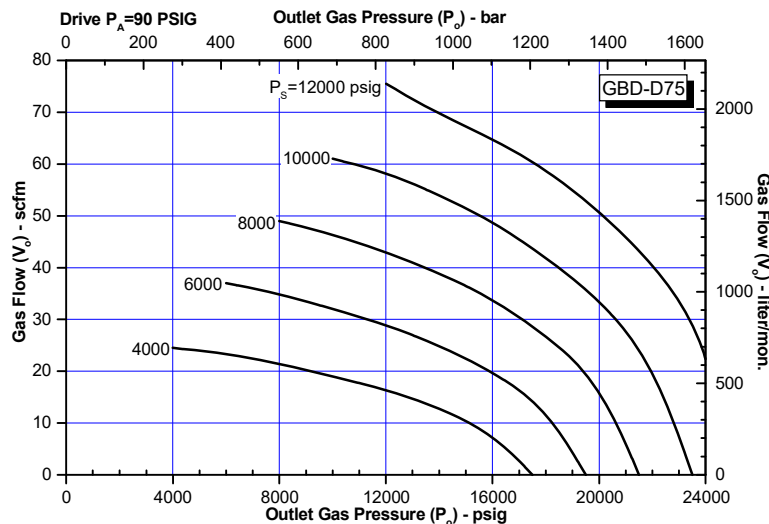
The curves are based on an Air Drive (P_A) of 90 psig and a maximum air consumption of 72-scfm. If the P_A is higher or lower, the Outlet gas pressure (P_o) can change significantly.

Also, the supply pressures (P_s) shown in the graphs are based on constant pressure being supplied as the pressure is boosted. A supply from cylinders or bottles will affect the pressure outlet (P_o) and flow (V_o) as the supply pressure (P_s) is depleted.

Contact SC Hydraulic Engineering for detailed performance data on any



GBD-D30

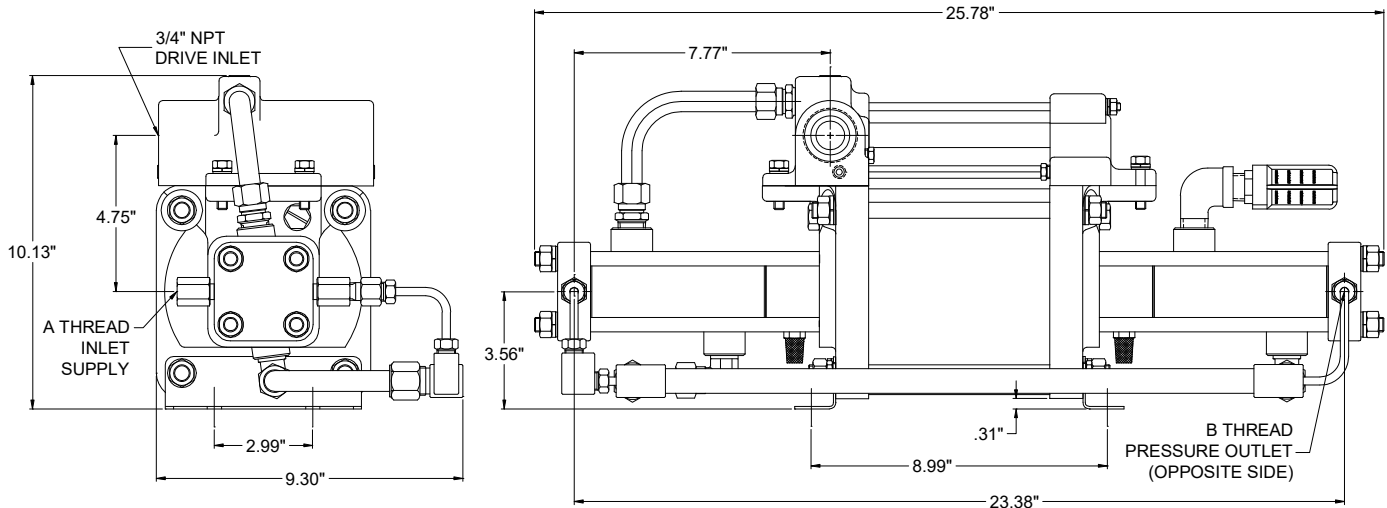


GBD-D75

GBT SERIES

Two Stage-Double Acting Booster

The GBT series is able to achieve higher compression ratios by combining the first and second stage with an interconnected hydraulic (gas) piston. Maximum outlet pressure is the supply pressure plus the drive area ratio times the area ratio of both hydraulic (gas) pistons.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GBT-15/30	15 Pa to 2500 psig ⁽²⁾ 172 bar	9,000 psig 620 bar	1/4" NPT 1/4" NPT	30 Pa + 2 Ps	50 psig (3.5 bar)	7.05
GBT-15/75	3.5 Pa to 5000 psig ⁽²⁾ 345 bar	20,000 psig 1,380 bar	1/4" NPT 9/16"-18 ⁽¹⁾	75 Pa + 5 Ps	50 psig (3.5 bar)	7.05
GBT-30/75	20 Pa to 6000 psig ⁽²⁾ 410 bar	20,000 psig 1,380 bar	1/4" NPT 9/16"-18 ⁽¹⁾	75 Pa + 2.5 Ps	100 psig (7 bar)	3.1

- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
- (2) GBT Series Gas Boosters: Limit maximum gas supply pressure by formula $P_s \text{ max} = \text{factor} * P_a$ to avoid interstage stall (for example, for gas booster model GBT-15/30 the formula is: $P_s \text{ max} = 15 * P_a$).
3. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
4. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: $\text{Static Outlet Stall Pressure} = 30 * P_a + P_s$).
5. Maximum recommended air drive operating pressure: 100-psi.
6. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
7. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
8. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
9. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

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GBT SERIES

Two Stage-Double Acting Booster

Legend
 PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow

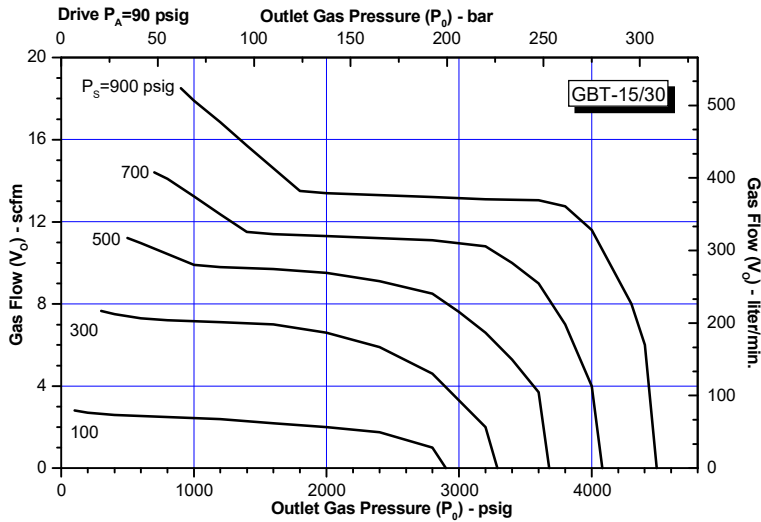
NOTE:

Performance charts are for reference only.

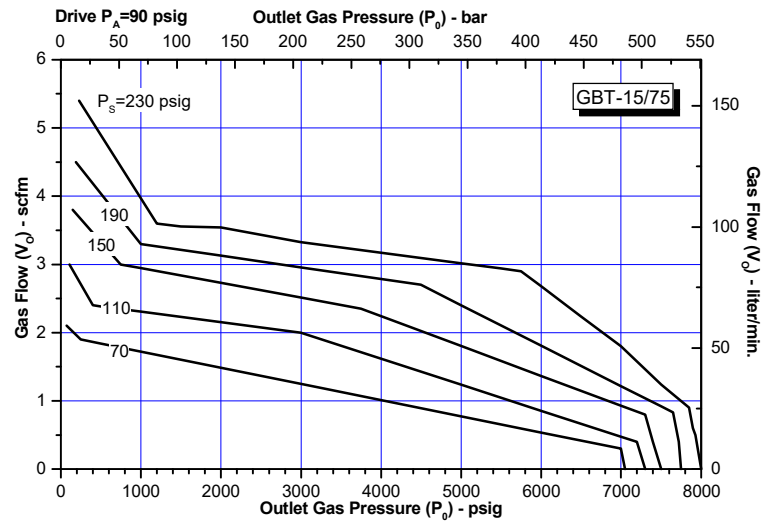
The curves are based on an Air Drive (Pa) of 90 psig and a maximum air consumption of 72-scfm. If the Pa is higher or lower, the Outlet gas pressure (Po) can change significantly.

Also, the supply pressures (Ps) shown in the graphs are based on constant pressure being supplied as the pressure is boosted. A supply from cylinders or bottles will affect the pressure outlet (Po) and flow (Vo) as the supply pressure (Ps) is depleted.

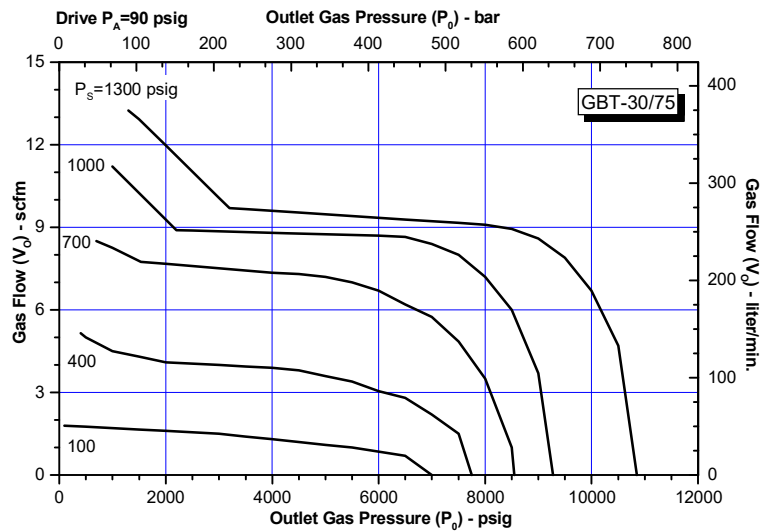
Contact SC Hydraulic Engineering for detailed performance data on any



GBT-15/30



GBT-15/75

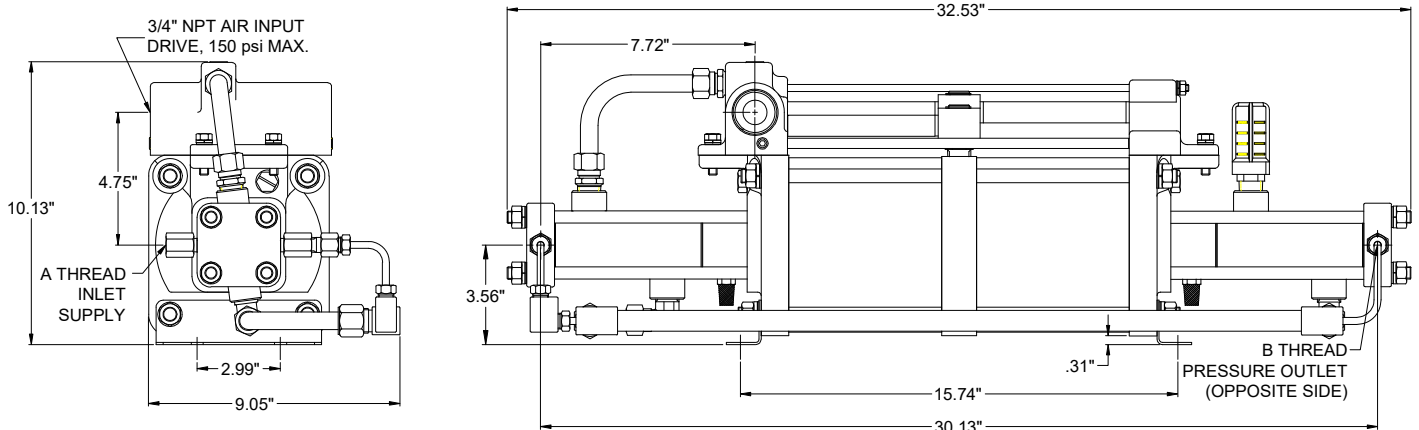


GBT-30/75

GBT-D SERIES

Two Stage-Double Head Booster

This series has the same characteristics of the standard GBT however the double head allows half the input pressure to achieve the same outlet pressure.



Model No.	Maximum Material Rated Gas Supply Pressure (Ps)	Maximum Material Rated Gas Outlet Pressure (Po)	Inlet Port (A) Outlet Port (B)	Static Outlet Stall Pressure	Minimum Inlet Gas Pressure (Ps)	Displacement Per Stroke (in3 per cycle)
GBT-D15/30	30 Pa to 2500 psi ⁽²⁾	9,000 psig 620 bar	1/4" NPT 1/4" NPT	60 Pa +2 Ps	100 psig (7 bar)	7.05
GBT-D15/75	7 Pa to 5000 psig ⁽²⁾	25,000 psig 1,725 bar	1/4" NPT 9/16"-18 ⁽¹⁾	150 Pa + 5 Ps	100 psig (7 bar)	7.05
GBT-D30/75	40 Pa to 3600 psig ⁽²⁾	25,000 psig 1,725 bar	1/4" NPT 9/16"-18 ⁽¹⁾	150 Pa + 2.5 Ps	100 psig (7 bar)	3.1

- (1) Coned and Threaded High Pressure Connection for 1/4" O.D. Tubing.
- (2) GBT Series Gas Boosters: Limit maximum gas supply pressure by formula $P_s \text{ max} = \text{factor} * P_a$ to avoid interstage stall (for example, for gas booster model GBT-15/30 the formula is: $P_s \text{ max} = 15 * P_a$).
3. Refer to corresponding gas booster performance curve for operating pressures (see page 9 to 20).
4. Maximum material rated outlet pressures can be reached under special operating conditions. Do not use air drive or/and gas supply pressures that equate to higher outlet pressures than those "maximum material rated outlet pressures" shown on table. Refer to Static Outlet Stall Pressure formula shown on table (for example, for gas booster model GBD-30 the formula is: $\text{Static Outlet Stall Pressure} = 30 * P_a + P_s$).
5. Maximum recommended air drive operating pressure: 100-psi.
6. Maximum rated air drive pressure: 150-psi (only for static outlet stall pressure).
7. Maximum allowed working pressure for oxygen service boosters: 5,000-psi max.
8. Maximum allowed working pressure for hydrogen service boosters : 6,000-psi max.
9. Oxygen & hydrogen service boosters not available on all models. Contact factory for more information.

For assistance in selecting the proper Gas Booster complete and fax the data work sheet or e-mail inquiries to service@schydraulic.com

GBT-D SERIES

Two Stage-Double Head Booster

Legend

PA = Drive Pressure
 PO = Gas Outlet Pressure
 PS = Gas Inlet Pressure
 VO = Output Gas Flow

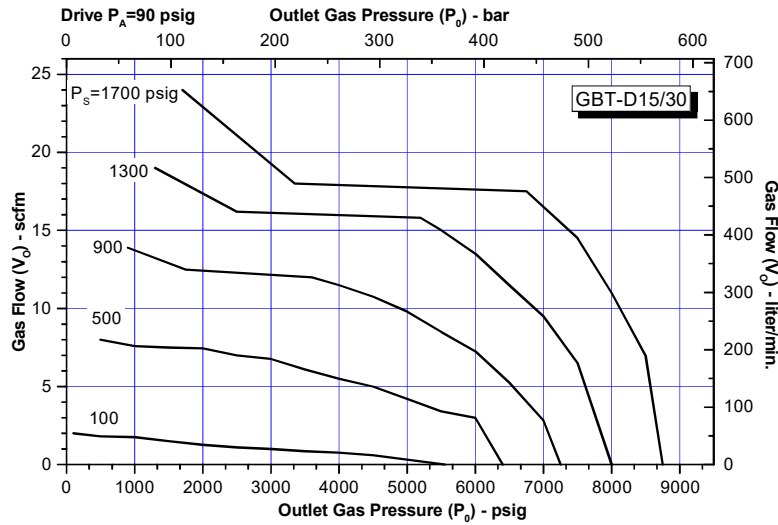
NOTE:

Performance charts are for reference only.

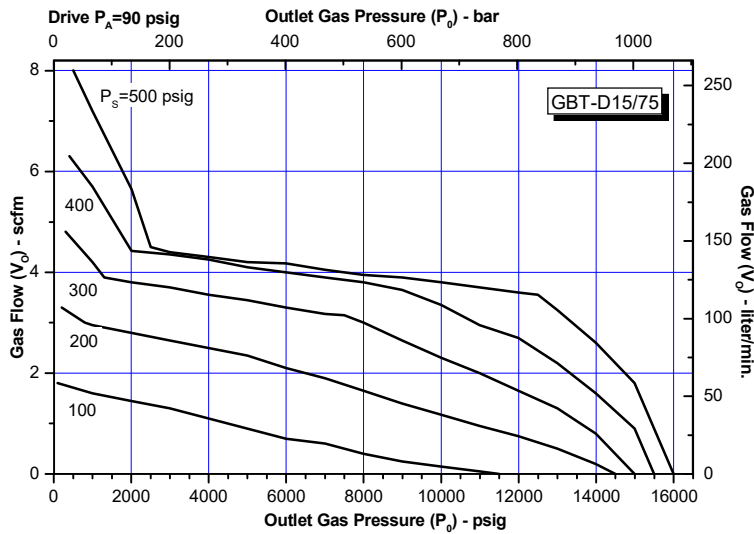
The curves are based on an Air Drive (Pa) of 90 psig and a maximum air consumption of 72-scfm. If the Pa is higher or lower, the Outlet gas pressure (Po) can change significantly.

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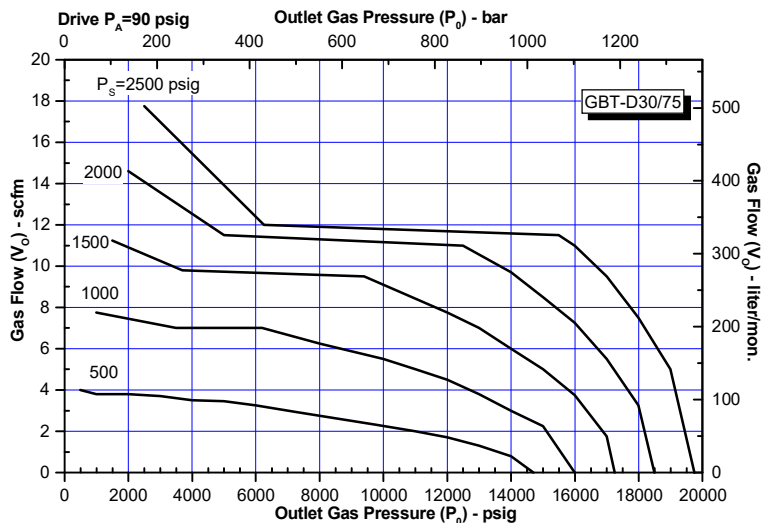
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GBT-D15/30



GBT-D15/75



GBT-D30/75