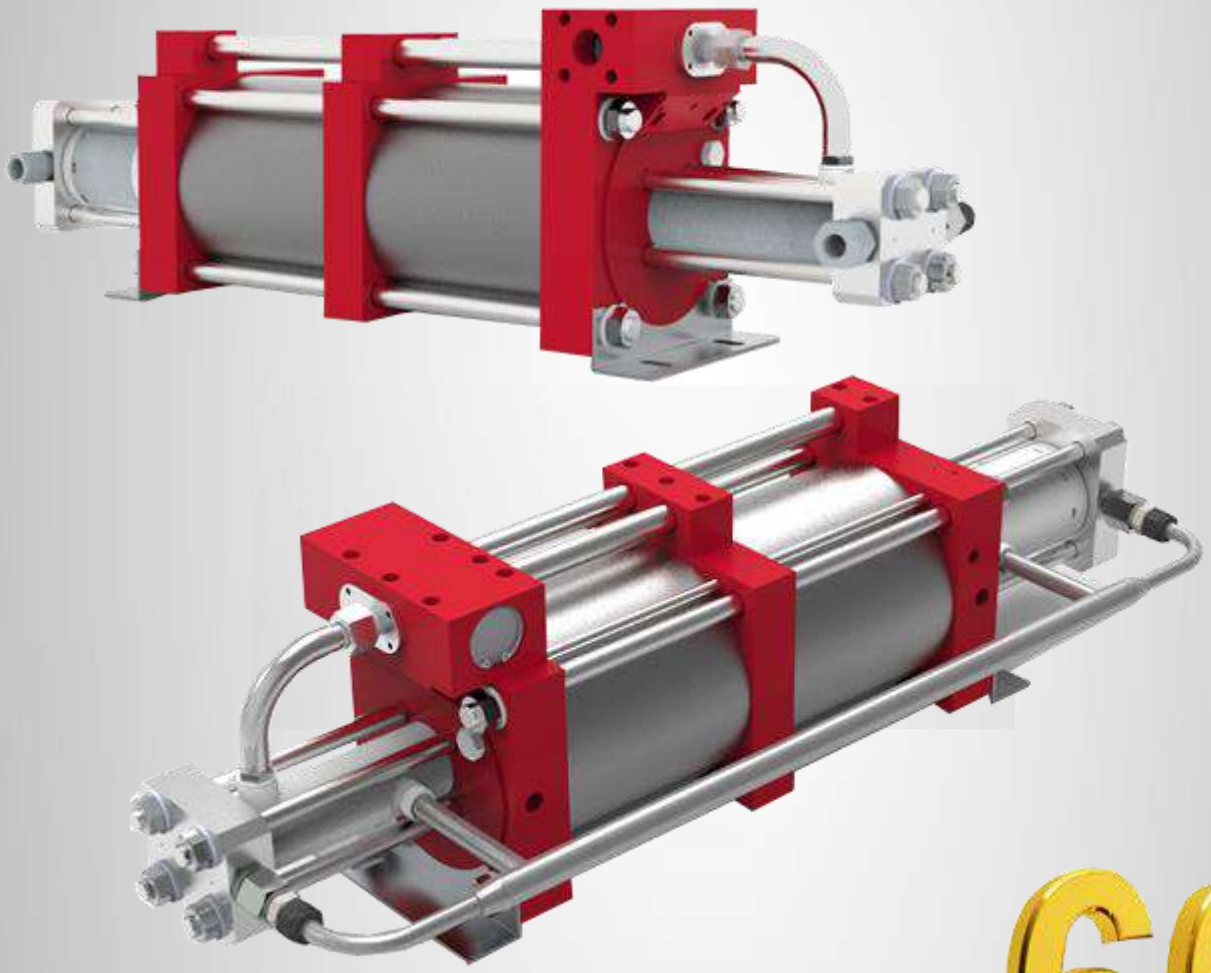
OPETCO

INDUSTRIAL HIGH PRESSURE SPECIALIST

Air Driven Gas Booster



Models: 60

More than 60 types of Gas boosters up to 4,000 bar (60,000 Psi)

Contents:

Introduction:

OPET Gas Boosters:

Gas boosters are designed for making pressure about several gas same as Air, Nitrogen, Argon, Helium, Hydrogen and oxygen.

Operation of Gas Boosters are as an intensifier with pneumatic driven, without any electricity and useful for hazardous zone. It is found many of mechanical engineering knowledge in design and manufacturing of Gas boosters, for automatic operation, normally uses electric and electronic systems, but in Gas boosters every things works by pneumatic systems.

OPET Boosters operate in simple principle of physics. A large area piston pushes a small high pressure piston, differential in area means making pressure in pressure piston.

The air drive section is fitted with a unique air-operated cycling valve that has no mechanical pilot valves, ensuring low noise operation. Cooling of the high-pressure gas cylinder section of the booster takes place by routing the cold exhausted drive air through a jacket surrounding the gas cylinder and, with the two-stage model, through an intercooler on the inter stage line. This also significantly improves overall efficiency.

We try to offer a complete range of single, double acting and two-stage gas boosters. The boosters are available in various ratios. The higher the ratio the higher the output pressure of the booster. Single acting boosters only have one gas cylinder. Double acting boosters have two identical gas cylinders for a higher output flow. For higher compression ratios, e.g. relative high Output pressure at relative low inlet pressure, two-stage boosters are used. These boosters have two different gas cylinders, each with a different ratio.

Gas boosters are suitable for transfer and pressurization of a wide range of gases, e.g. Nitrogen, Helium, CO_2, Argon and Breathing air.

Advantage of Air Driven Gas Booster:

- No Heat , flame od Spark Risk
- Pressure Compensate without consuming Power and Energy
- Suitable for most Gases
- Compact and easy to maintenance
- Robust Design
- Available for ATEX and NACE

Why OPET Boosters?

Suitable for many types of gases because all gas contacted parts of the high-pressure section are made of special selected stainless steel. Long working life of the seals because the gas boosters are standard provided with specially engineered polymer compounds. Check valve cartridges can be replaced within minutes. Air drive of the gas booster with air piston and special cycling spool. The high-pressure seal can be replaced within minutes, without dismantling the air drive section.

The air piston is provided with PTFE based slide rings (bearings) for excellent wear-and-slide qualities. Excellent control of flow and output pressure due to low frictional resistance of the air piston, even at low air drive pressure.

Application of OPET Gas Boosters:

Condenser Leak Detection	Charging Gas Suspensions	Boost Pressures from N2/O2
Cleaning of burner systems	Missile Test Systems	Generators
Airbag systems	Cooling with Helium in Pilot	Breathing Air Systems
Gas Transfer Circuit	Plants	Laser Cutting (Ar, N2,O2, He)
Breakers	Nitrogen Injection for Molding	CFC Recovery
Cylinder charging	Machines	Leak Detection Systems
Aircraft Jacking	Cryostat Testing (Nitrogen	Fuel Cells; Mobile, Portable
Life-guard service	and Argon)	and Stationary
Helicopter Pop Floats	Nitrogen Accumulator	Power Valve Actuation/Hold
Color changing systems	Charging	Dump Valves Closed
Autoclaving - Low Pressure	Die Cushion Cylinder	Gas Assisted Injection
Plastic industry	Charging	Molding (GAIN)
Hot Isostatic Presses	Oxygen Life Support Bottles	Gas Charging for Aircraft Tire
Pressure test	Escape Chute Charging –	Inflation
Automotive Air Bag Vessel	Co2 Charging	Pressure Testing of Hydraulic
Filling	Oxygen Boosting	Systems – Skydrol
Helium Leak Pressure	Forming	Gas Pressure and Leak
Testing	Gas Reclaim - Low Pressure	Testing
Blow Molding	Testing Brake Calipers	
Super Critical Fluid Extraction	Cylinder Hydro Test	

OPET Gas booster; type and models:

OPET company, designed air driven boosters in 6 Models totally (Regardless of working pressure)

1- Single acting booster with single driven piston Model: OGS1 - …..

2- Double acting booster with single driven piston Model: OGD1 - …..

3- Two stages booster with single driven piston Model: OGT1 - …..

4- Single acting booster with Double driven piston (Tandem) Model: OGS2 - …..

5- Double acting booster with Double driven piston (Tandem) Model: OGD2 - …..

6- Two stages booster with Double driven piston (Tandem) Model: OGT2 - …..

There are 3 Models also on request:

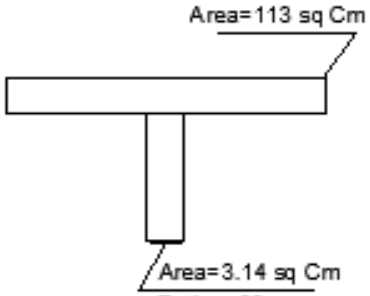
7- Single acting booster with three driven piston (Triplex) Model: OGS3 - …..

8- Double acting booster with three driven piston (Triplex) Model: OGD3 - …..

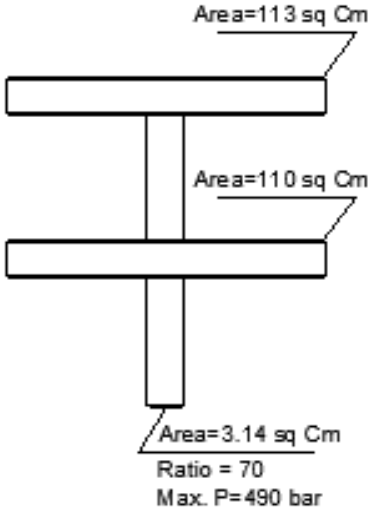
9- Two stages booster with three driven piston (Triplex) Model: OGT3 - …..

In some applications by changing Air piston, the ratio of booster can be about two times or three time more than single piston, but the flow of booster will be fixed. In comparison a booster with single piston and same ratio and flowrate, triplex boosters consume less air and will be economical booster.
OPET coding for several boosters can help to understand different part numbering for simply choosing the boosters according to applications.

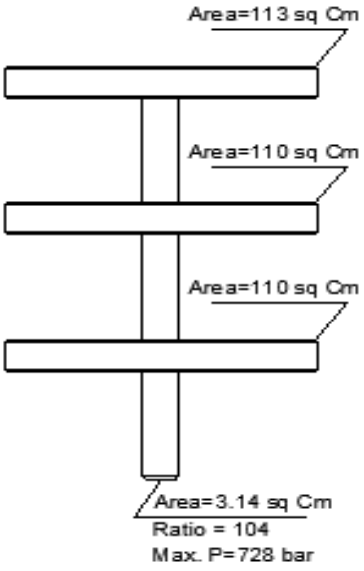
Single Piston



Tandem Pistons



Triple Pistons



Special Design in OPET Boosters:

According to rule of Gases in Thermodynamic, all of gases will be warm in compression process; because of Adiabatic process gas will be hot. It means, without any cooling it causes the efficiency to decrease and also booster be damaged.
OPET R&D Team calculated by special software and they could to find critical point and the most thermal stress in boosters, finally they make several cooling systems (cooling jackets for pistons, cooling nozzles for check valves and also cooling systems between stage one and stage two.
We claim to have created the best cooling system in boosters.

How OPET Boosters Work?

Concept design of boosters are simple, it means conversion between force and pressure, there is simple formula F=P. A ; F: Force , P: Pressure , A: Area

In calculation of outlet pressure by inlet pressure and Drive pressure , We suppose ΣF= 0 , therefore:

$P_{out} \times A_{gas} = P_{air} \times A_{piston} \longrightarrow P_{out} = K \cdot P_{air}$; $K = A_{piston} / A_{gas}$

This is simple formula for single acting boosters, for other boosters (double Acting and specially two stages) calculation formula will be long and more details but all of them are from that basic formula we mentioned.

Stall Pressure:

Normally, gas booster at maximum outlet pressure will be stopped. But in Two stages Boosters, there is a limitation in supply pressure, more than allowed pressure, will cause the booster to stop also. We help to learn how can calculate the maximum supply pressure.

We suppose All of Compressed gas from first stage, will go to second stage:

A_1: Area of stage 1	A_2: Area of Stage 2	A_a: Air piston Area
$i_1 : A_a / A_1$	L : Stroke of gas booster	L': Assumed Stroke of 1th stage
$i_2 : A_a / A_2$	$i_3 = i_2 / i_1$	

Volume of gas in first stage: $V_1 = A_1 \cdot L$

This volume will be compressed by Air Drive: $P_{1\,out} \cdot A_1 = P_a \cdot A_a \Rightarrow P_{1out} = P_a \cdot A_a/A_1 = P_a \cdot i_1$ (1)

We must calculate how much the gas compressed: $P_s \cdot V_1 = P_{1out} \cdot V_1' \Rightarrow P_s.A_1.L = P_{1out}.A_1.L' \Rightarrow P_s \cdot L = P_{1out} \cdot L'$ (2)

P_{1out} must be equal with P_{2in} when piston1 moves L': $P_{1out} \cdot A_1 \cdot L' = P_{2in} \cdot A_2 \cdot L \Rightarrow A_1 \cdot L' = A_2 \cdot L$ (3)

(1),(2),(3) => Stall Pressure for suction : $P_s = i_1 \cdot P_a / i_3$

For example:

OGT1-5-30 , i_1=5 , i_2=30 => i_3=6 => if P_a=7 bar => P_s=5.8 bar therefor P_s<5.8 bar for P_a=7 bar

Calculation Flow of Gas boosters:

Flow rate of boosters depend on speed, supply pressure, air pressure and outlet pressure and also compressed air flow rate.

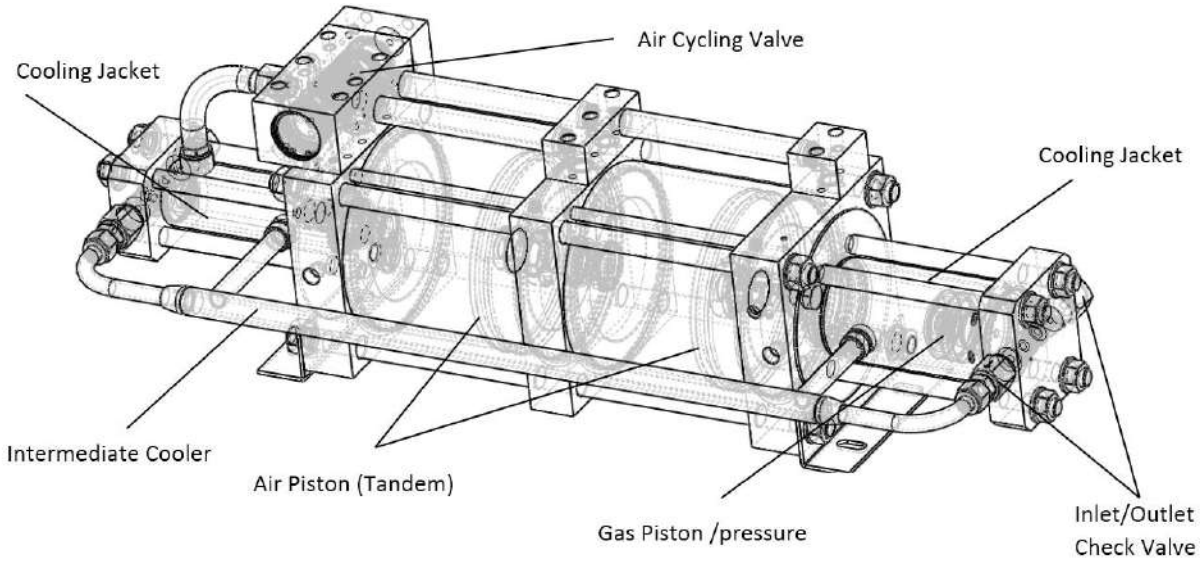
We suppose: **Q_a=2700 NLpm** and for Single drive and single acting booster:

Speed of booster: **93.25 Cycle/min**

Flow of booster = $(Q_a \cdot P_s) / (i_1 \cdot P_a \cdot 2)$

For example:
OGS1-5 flow = 2700 x 11 / (5 x 6 x 2) = 495 Nlpm
Flow of OGD1-5 = 2 x Flow of OGS1-5

Please Note: All of above Calculations is the simplest way for dear customers and actual calculations are more complicated for catalogue



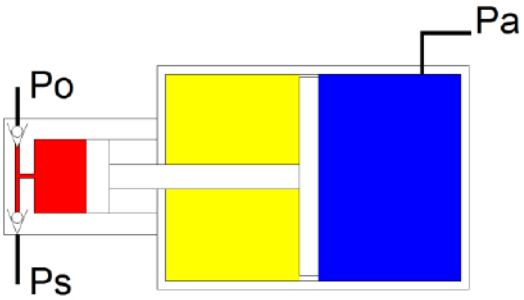
Part Numbering In OPET Gas Boosters:

OG□□-□

A B C

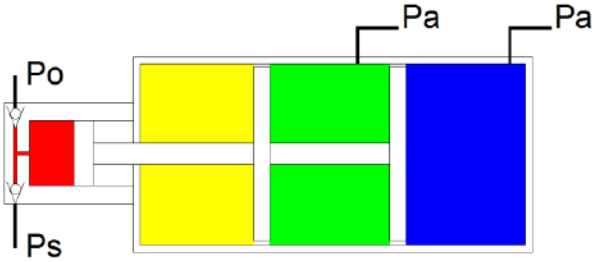
A:	**B:**	**C:**
S : Single acting	**1 : with 1 Air Drive Piston (Single)**	**Pressure Ratio**
D : Double Acting	**2: with 2 Air Drive Piston (Tandem)**	
T : Two Stages	**3: with 3 Air Drive Piston (Triplex)**	

Boosters with single air drive Head

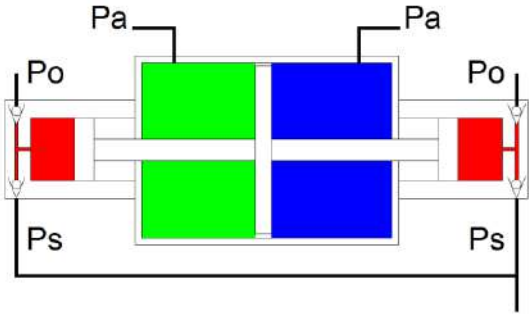


Gas Booster : **OGS1** Series

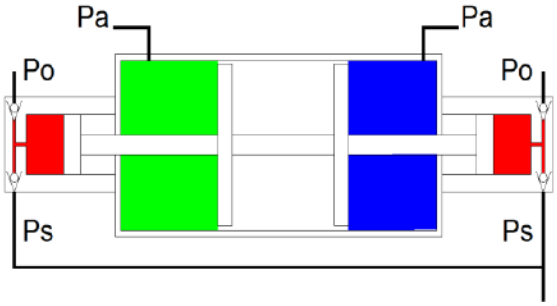
Boosters with Tandem Air Drive Head



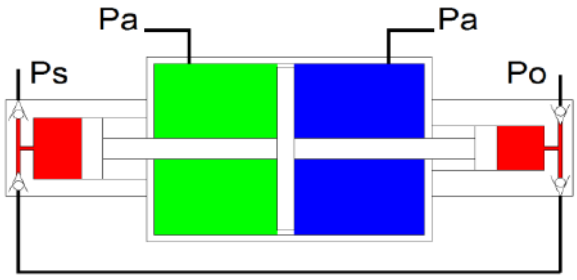
Gas Booster : **OGS2** Series



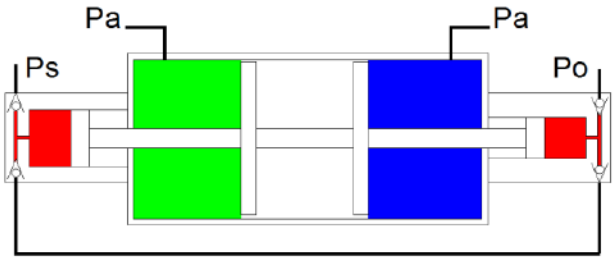
Gas Booster : **OGD1** Series



Gas Booster : **OGD2** Series



Gas Booster : **OGT1** Series



Gas Booster : **OGT2** Series

Quick View Table for quick Search of Air Driven Boosters:

Note: Pa (Air Pressure) = 7 bar (100 Psi)

Press. Up to	Part Number	Max Outlet Press. (bar)	Min supply Press. (bar)	Max supply Press. (bar)	Max. Flow Nlpm @Ps
25 bar 360 Psi	OGS1- 2.5	2.5 x Pa	0	17.5	480@6
	OGD1- 2.5	2.5 x Pa + Ps	0	17.5	950@6
50 bar 700 Psi	OGS2- 5	5 x Pa	2	35	850@11
	OGD2- 5	5 x Pa + Ps	2	35	1700@11
	OGS1- 5	5 x Pa	2.5	35	430@11
	OGD1- 5	5 x Pa + Ps	2.5	35	850@11
	OGT1- 2.5 - 5	5 x Pa + 2 x Ps	1.3	8.5	545@7.3
100 bar 1500 Psi	OGS1- 10	10 x Pa	5	70	400@20
	OGD1- 10	10 x Pa + Ps	5	70	800@20
	OGT1- 5-10	10 x Pa + 2 x Ps	2.5	17	530@14.5
	OGS2- 10	10 x Pa	4	70	780@20
	OGD2- 10	10 x Pa + Ps	4	70	1550@20
	OGT2- 5-10	10 x Pa + 2x Ps	2.5	17	1100@14
150 bar 2000 Psi	OGS1- 15	15 x Pa	8	105	320@25
	OGD1- 15	15 x Pa + Ps	8	105	630@25
	OGT1- 5-15	15 x Pa + 3 x Ps	2.6	11	345@9
300 bar 4500 Psi	OGS2- 30	30 x Pa	13	210	440@35
	OGD2- 30	30 x Pa + Ps	13	210	900@35
	OGT2- 5-30	30 x Pa + 6 x Ps	2.4	5.6	360@4.8
	OGT2- 10-30	30 x Pa + 3 x Ps	4.9	22	690@18.8
	OGS1- 30	30 x Pa	15	300	250@35
	OGD1- 30	30 x Pa + Ps	15	300	500@35
	OGT1- 5-30	30 x Pa + 6 x Ps	3	6.4	200@5.5
	OGT1-10-30	30 x Pa + 3 x Ps	5.5	25	400@21
	OGT1- 15-30	30 x Pa + 2 x Ps	8.5	58	600@49
700 bar 10000 Psi	OGS2- 65	65 x Pa	25	455	400@55
	OGD2- 65	65 x Pa + Ps	25	455	800@55
	OGT2- 10-65	65 x Pa + 6.5 x Ps	5.5	12.8	400@11
	OGT2- 30-65	65 x Pa + 2 x Ps	16.8	118	1210@100
	OGS1- 65	65 x Pa	30	455	175@55
	OGD1- 65	65 x Pa + Ps	30	455	350@55
	OGT1- 10- 65	65 x Pa + 6.5 x Ps	4.8	11.2	180@9.6
	OGT1- 15- 65	65 x Pa + 4 x Ps	7.5	26	265@22
	OGT1-30-65	65 x Pa + 2 x Ps	13.3	93	530@79

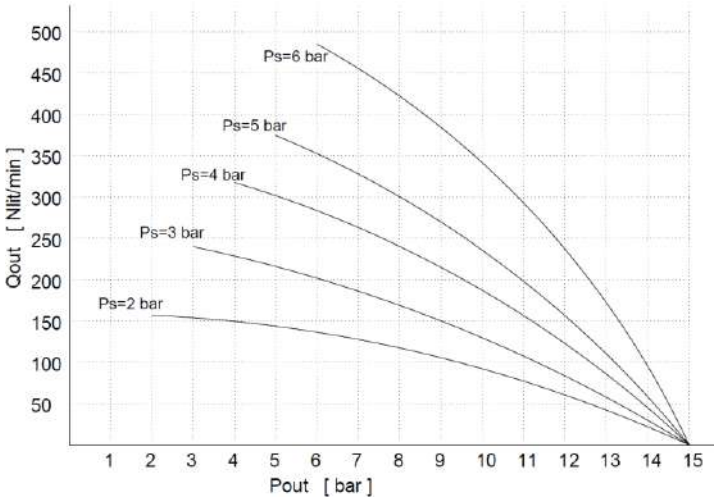
Press. Up to	Part Number	Max Outlet Press. (bar)	Min Inlet. Press. (bar)	Max inlet Press. (bar)	Max. Flow Nlpm
1100 bar 16,000 Psi	OGS1- 110	110 x Pa	55	770	195@110
	OGD1- 110	110 x Pa +Ps	55	770	390@110
	OGT1- 15-110	110 x Pa +7 x Ps	7.7	14.7	150@12.6
	OGT1- 30-110	110 x Pa +3.6 x Ps	13.8	52.5	300@45
	OGT1- 65-110	110 x Pa + 1.5 x Ps	31	250	640@210
	OGS2- 110	110 x Pa	47	770	350@110
	OGD2- 110	110 x Pa +Ps	47	770	700@110
	OGT2-30-110	110 x Pa +3.6 x Ps	14	52	530@44.5
	OGT2-65-110	110 x Pa + 1.5xPs	25	186	1070@160
1700 bar 25,000 psi	OGS1-170	170 x Pa	84	1190	400@350
	OGD1-170	170 x Pa + Ps	84	1190	800@350
	OGT1- 30-170	170 x Pa+ 5.6 xPs	14	33	190@28
	OGT1- 65 -170	170 x Pa+ 2.6 xPs	31	163	420@140
	OGT1- 110-170	170 x Pa+ 1.5 xPs	54	490	700@420
	OGS2 -170	170 x Pa	83	1190	620@350
	OGD2-170	170 x Pa + Ps	83	1190	1250@350
	OGT2- 30-170	170 x Pa+ 5.6 xPs	12	29	300@25
	OGT2- 65-170	170 x Pa+ 2.6 xPs	21	105	600@90
	OGT2- 110-170	170 x Pa+ 1.5 xPs	48	430	1100@370
2500 bar 36000 psi	OGS2 - 250	250 x Pa	125	1750	570@500
	OGD2 - 250	250 x Pa +Ps	125	1750	1150@500
	OGT2 – 65 - 250	250 x Pa +3.8 x Ps	35	72	400@62
	OGT2- 110 - 250	250 x Pa +2.2 x Ps	70	490	700@420
4000 bar 60,000 psi	OGS3 – 520	520 x Pa	260	3640	1140@1000
	OGD3 – 520	520 x Pa + Ps	260	3640	2280@1000
	OGT3 – 110-520	520 x Pa + 4.7x Ps	60	177	700@150
	OGT3 – 170-520	520 x Pa + 3 x Ps	94	420	1100@360

OPET MODEL: OGS1- 2.5

Single Acting Booster with single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a= Air Pressure — P_a = 6 bar
P_s= supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1-2.5
Pressure Ratio	1:2.5
Max. Compression Ratio	1:10
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	0
Max. Gas Inlet Pressure bar[psi]	17.5 [253]
Calculation Gas Outlet	2.5 x P_a
Displacement Volume Cm^3	1,200
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	16

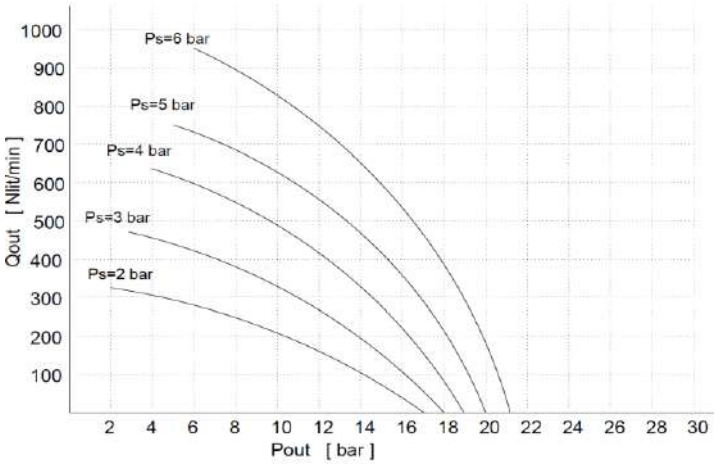


OPET MODEL: OGD1- 2.5

Double Acting Booster with single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1-2.5
Pressure Ratio	1:2.5
Max. Compression Ratio	1:10
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	0
Max. Gas Inlet Pressure bar[psi]	17.5 [253]
Calculation Gas Outlet	2.5 x P_a + P_s
Displacement Volume Cm^3	2,400
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-fmale
Net Weight Kg	22

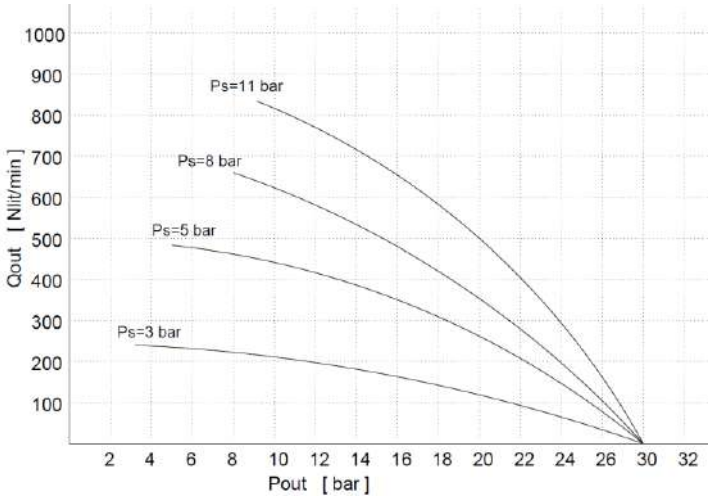


OPET MODEL: OGS2- 5

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 5
Pressure Ratio	1:5
Max. Compression Ratio	1:10
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	2 [29]
Max. Gas Inlet Pressure bar[psi]	35 [508]
Calculation Gas Outlet	5x P_a
Displacement Volume Cm^3	1,200
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	23

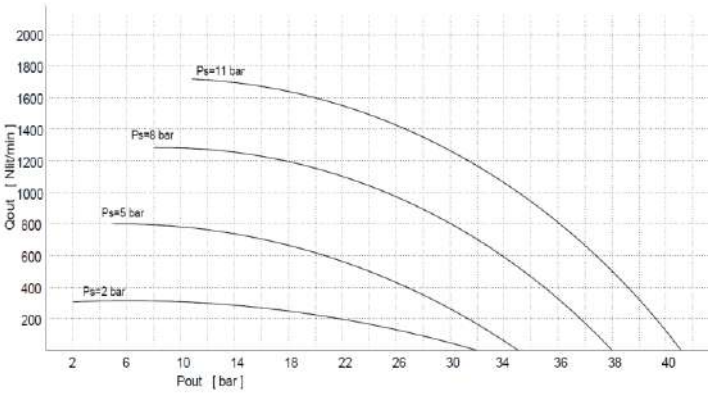


OPET MODEL: OGD2- 5

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a= Air Pressure — P_a = 6 bar
P_s= supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 5
Pressure Ratio	1:5
Max. Compression Ratio	1:10
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	2 [29]
Max. Gas Inlet Pressure bar[psi]	35 [508]
Calculation Gas Outlet	5 x P_a + P_s
Displacement Volume Cm^3	2,400
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	29



OPET MODEL: OGS1- 5

Single Acting Booster with single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

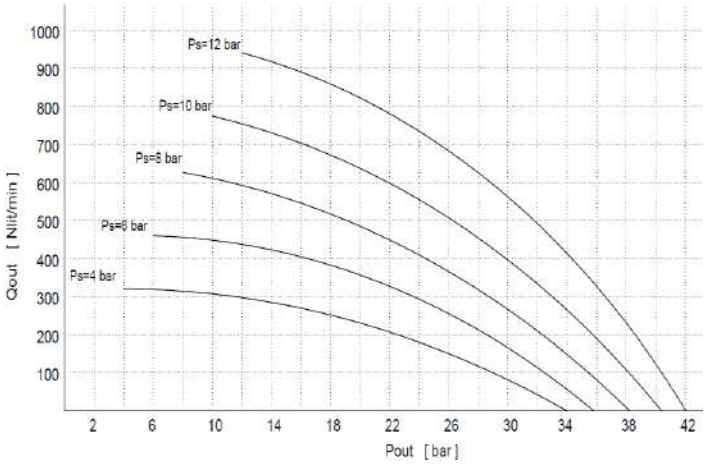
SPECIFICATION OF	OGS1-5
Pressure Ratio	1:5
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	2.5 [36]
Max. Gas Inlet Pressure bar[psi]	35 [508]
Calculation Gas Outlet	5 x P_a
Displacement Volume Cm^3	480
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	15

OPET MODEL: OGD1- 5

Double Acting Booster with single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1-5
Pressure Ratio	1:5
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	2.5 [36]
Max. Gas Inlet Pressure bar[psi]	35 [508]
Calculation Gas Outlet	5 x P_a + P_s
Displacement Volume Cm^3	960
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	21

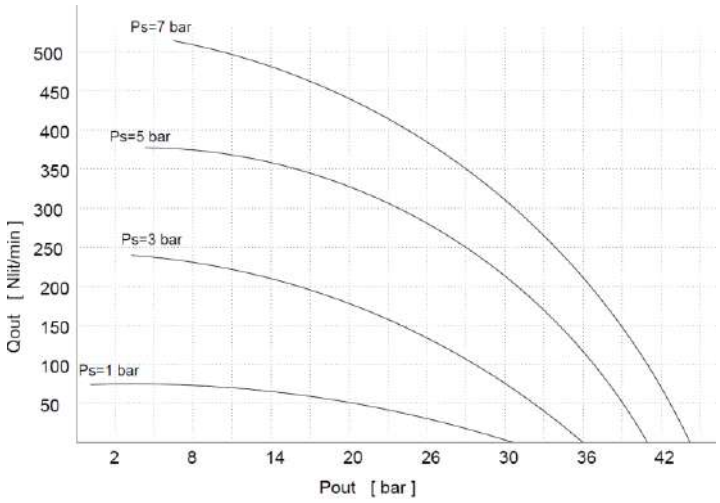


OPET MODEL: OGT1- 2.5 -5

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-2.5 -5
Pressure Ratio	1:2.5/1:5
Max. Compression Ratio	1:25
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	1.3 [19]
Max. Gas Inlet Pressure bar[psi]	0.8 x P_a
Calculation Gas Outlet	5 x P_a + 2 x P_s
Displacement Volume Cm^3	1150
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	21

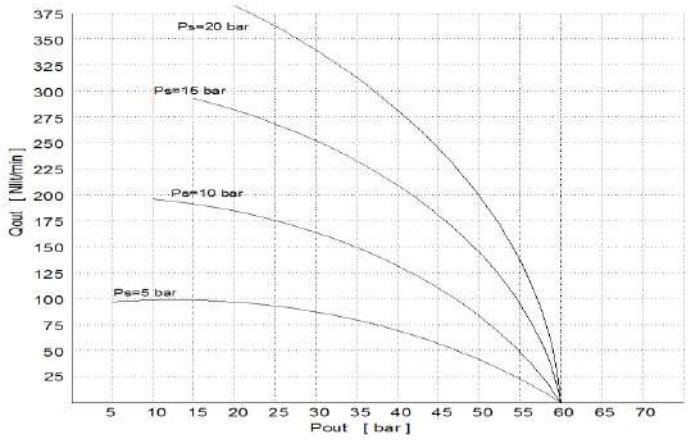


OPET MODEL: OGS1- 10

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 10
Pressure Ratio	1:10
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	5 [72.5]
Max. Gas Inlet Pressure bar[psi]	70 [1,000]
Calculation Gas Outlet	10 x P_a
Displacement Volume Cm^3	200
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	23

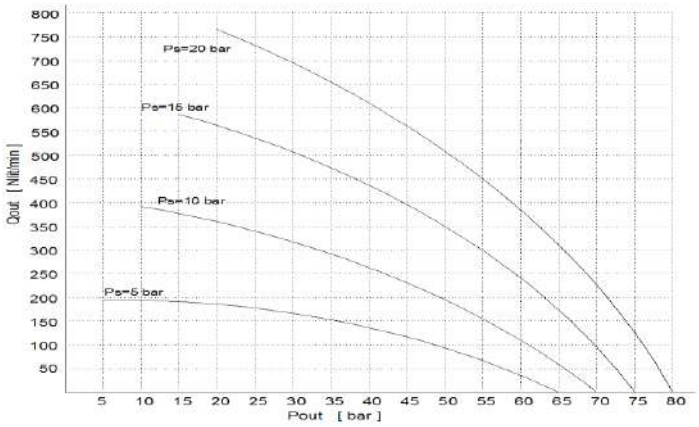


OPET MODEL: OGD1- 10

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 10
Pressure Ratio	1:10
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	5 [72.5]
Max. Gas Inlet Pressure bar[psi]	70 [1,000]
Calculation Gas Outlet	10 x P_a
Displacement Volume Cm^3	400
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	23

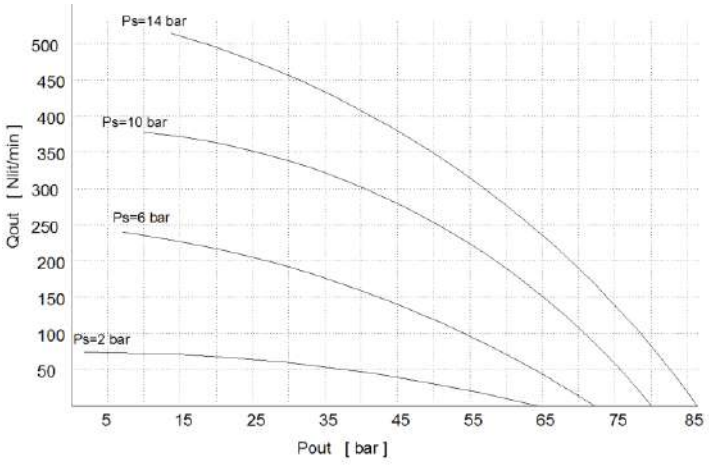


OPET MODEL: OGT1- 5 -10

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1- 5 -10
Pressure Ratio	1: 5/1:10
Max. Compression Ratio	1:25
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	2.5 [36]
Max. Gas Inlet Pressure bar[psi]	2 x P_a
Calculation Gas Outlet	10 x P_a + 2 x P_s
Displacement Volume Cm^3	680
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	21

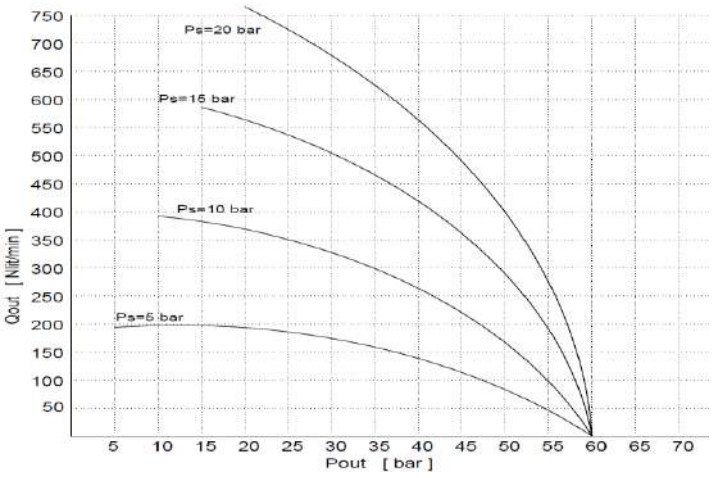


OPET MODEL: OGS2- 10

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 10
Pressure Ratio	1:10
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	4 [58]
Max. Gas Inlet Pressure bar[psi]	70 [1000]
Calculation Gas Outlet	10 x P_a
Displacement Volume Cm^3	480
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	23

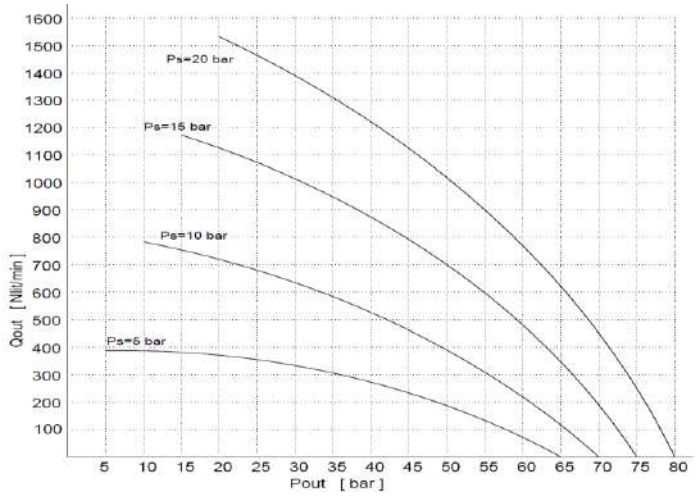


OPET MODEL: OGD2- 10

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 10
Pressure Ratio	1:10
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	4 [58]
Max. Gas Inlet Pressure bar[psi]	70 [1000]
Calculation Gas Outlet	10 x P_a + P_s
Displacement Volume Cm^3	960
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

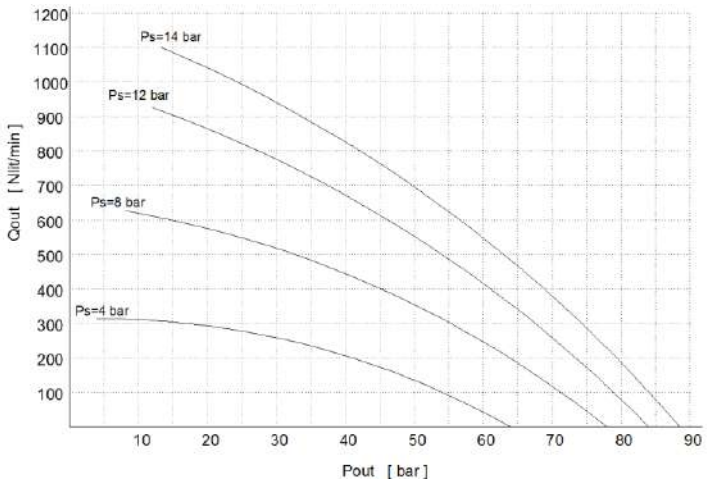


OPET MODEL: OGT2- 5-10

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-5-10
Pressure Ratio	1:5/1:10
Max. Compression Ratio	1:25
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	2.5 [36]
Max. Gas Inlet Pressure bar[psi]	2.5 x P_a
Calculation Gas Outlet	10 x P_a + 2 x P_s
Displacement Volume Cm^3	1150
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

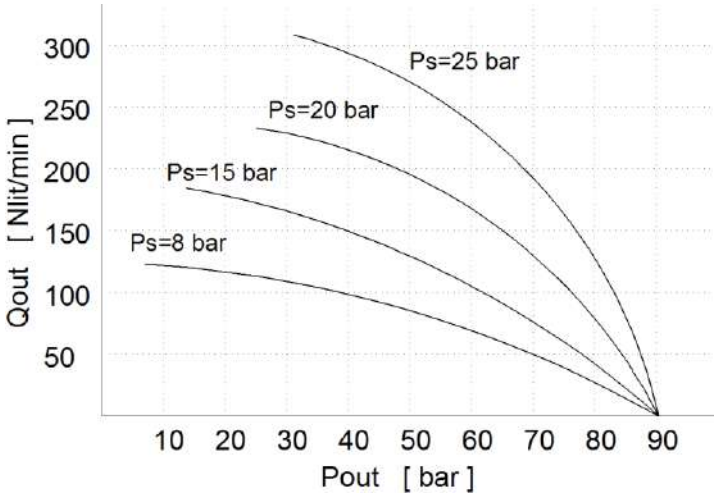


OPET MODEL: OGS1- 15

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 15
Pressure Ratio	1:15
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	8 [115]
Max. Gas Inlet Pressure bar[psi]	105 [1,500]
Calculation Gas Outlet	15 x P_a
Displacement Volume Cm^3	160
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	1/2NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	14

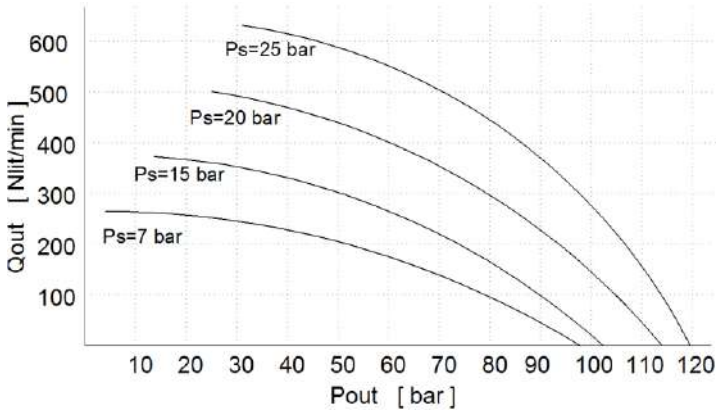


OPET MODEL: OGD1- 15

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 15
Pressure Ratio	1:15
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	8 [100]
Max. Gas Inlet Pressure bar[psi]	105 [1,500]
Calculation Gas Outlet	15 x P_a + P_s
Displacement Volume Cm^3	320
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	1/2NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

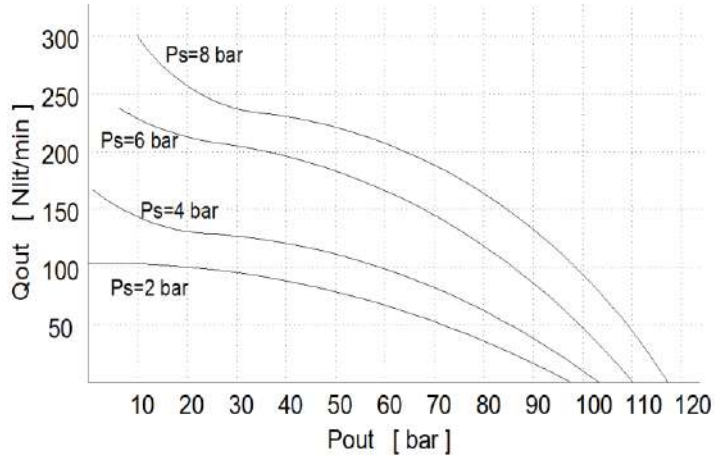


OPET MODEL: OGT1- 5-15

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1- 5-15
Pressure Ratio	1:5/1:15
Max. Compression Ratio	1:45
Stage Ratio	3
Min. Gas Inlet Pressure bar [Psi]	2.6 [38]
Max. Gas Inlet Pressure bar[psi]	1.6 x P_a
Calculation Gas Outlet	15 x P_a + 3xP_s
Displacement Volume Cm^3	420
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

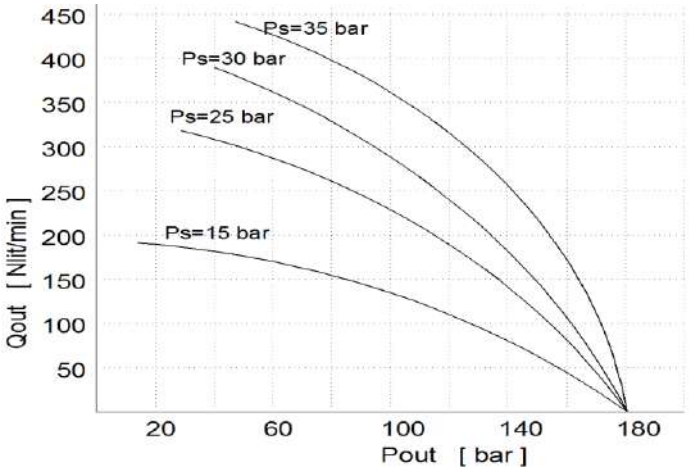


OPET MODEL: OGS2- 30

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 30
Pressure Ratio	1:30
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	13 [188]
Max. Gas Inlet Pressure bar[psi]	210 [3,000]
Calculation Gas Outlet	30 x P_a
Displacement Volume Cm^3	160
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

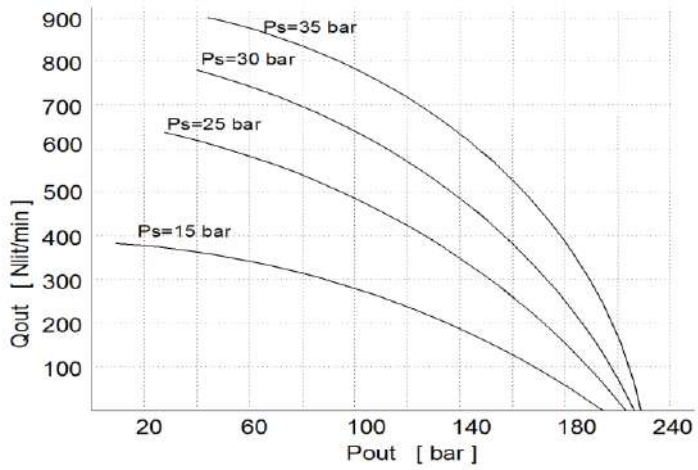


OPET MODEL: OGD2- 30

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 30
Pressure Ratio	1:30
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	13 [188]
Max. Gas Inlet Pressure bar[psi]	210 [3,000]
Calculation Gas Outlet	30 x P_a + P_s
Displacement Volume Cm^3	320
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

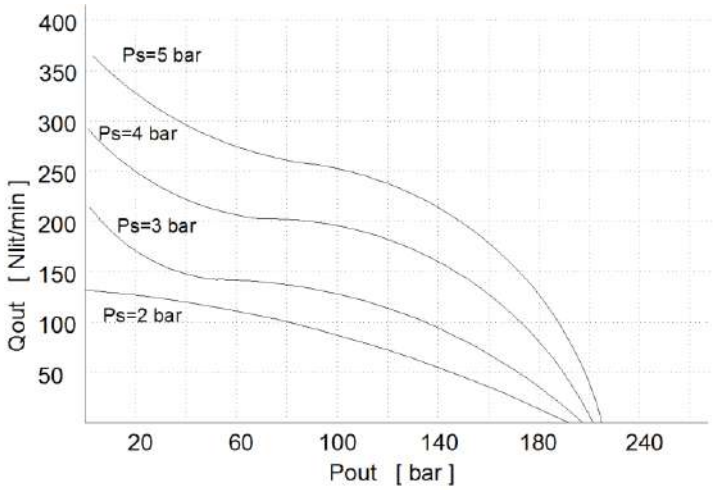


OPET MODEL: OGT2- 5 -30

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 5-30
Pressure Ratio	1:5/1:30
Max. Compression Ratio	1:45
Stage Ratio	6
Min. Gas Inlet Pressure bar [Psi]	2.4 [35]
Max. Gas Inlet Pressure bar[psi]	0.8 x P_a
Calculation Gas Outlet	30 x P_a + 6 x P_s
Displacement Volume Cm^3	1100
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	½ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	25

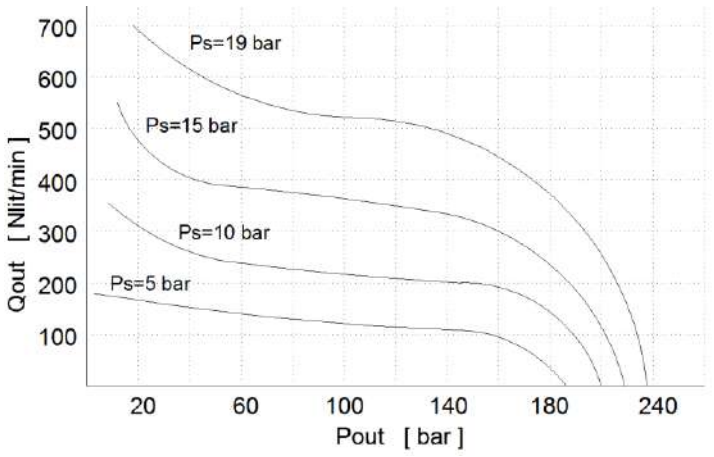


OPET MODEL: OGT2- 10-30

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 10-30
Pressure Ratio	1:10/1:30
Max. Compression Ratio	1:45
Stage Ratio	3
Min. Gas Inlet Pressure bar [Psi]	4.9 [71]
Max. Gas Inlet Pressure bar[psi]	3.2 x P_a
Calculation Gas Outlet	30 x P_a + 3 x P_s
Displacement Volume Cm^3	420
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	25

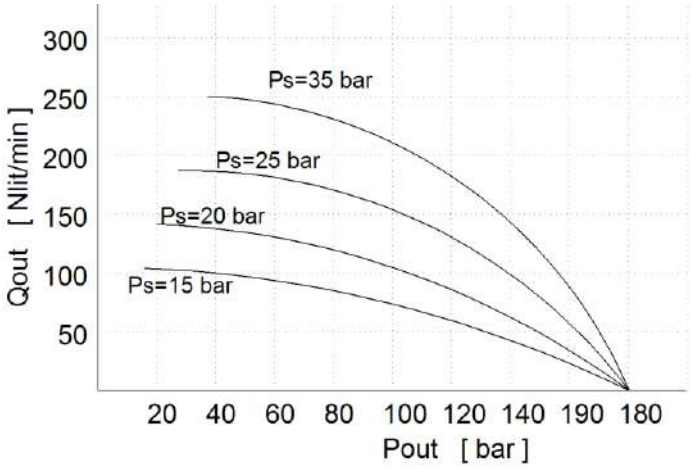


OPET MODEL: OGS1- 30

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 30
Pressure Ratio	1:30
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	15 [217]
Max. Gas Inlet Pressure bar[psi]	300 [4,350]
Calculation Gas Outlet	30 x P_a
Displacement Volume Cm^3	80
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	13

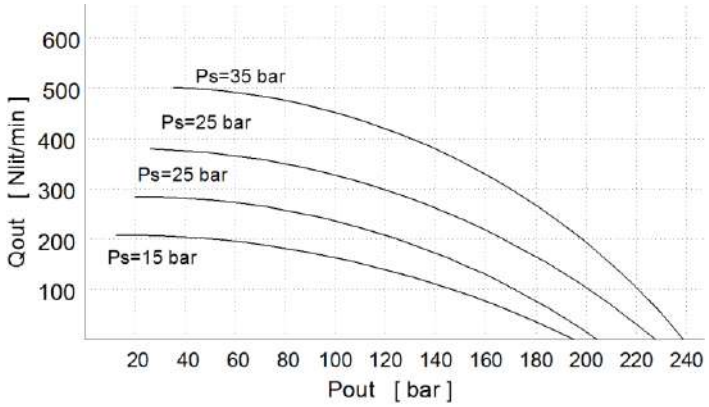


OPET MODEL: OGD1- 30

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 30
Pressure Ratio	1:30
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	13.8 [200]
Max. Gas Inlet Pressure bar[psi]	300 [4,325]
Calculation Gas Outlet	30 x P_a + P_s
Displacement Volume Cm^3	160
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

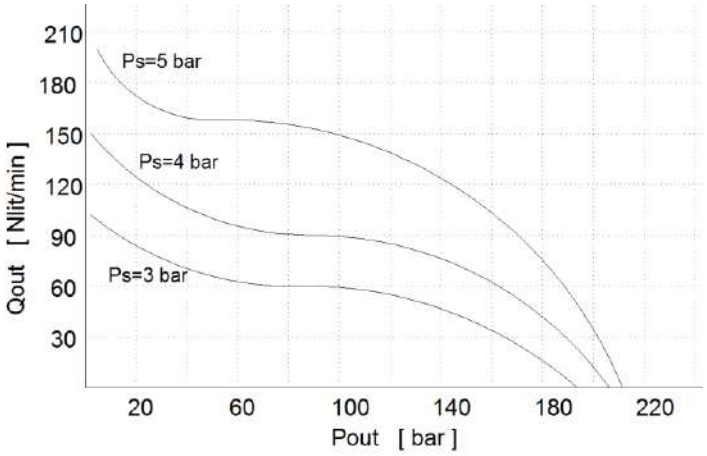


OPET MODEL: OGT1- 5-30

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1- 5-30
Pressure Ratio	1:5/1:30
Max. Compression Ratio	1:100
Stage Ratio	6
Min. Gas Inlet Pressure bar [Psi]	3 [44]
Max. Gas Inlet Pressure bar[psi]	0.8 x P_a
Calculation Gas Outlet	30 x P_a + 6 x P_s
Displacement Volume Cm^3	400
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

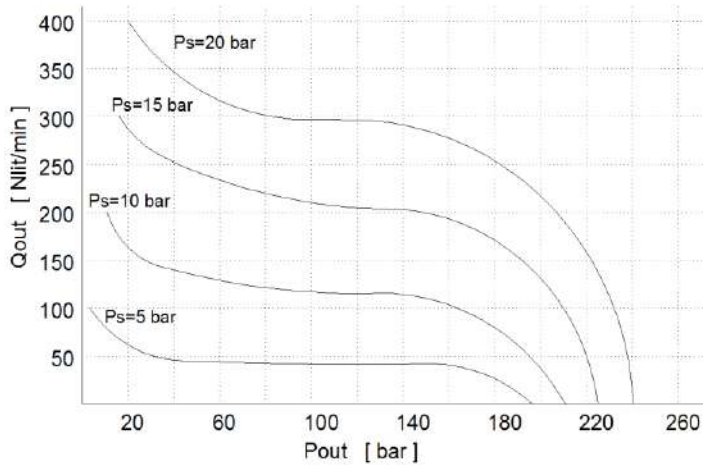


OPET MODEL: OGT1- 10-30

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-10-30
Pressure Ratio	1:10/1:30
Max. Compression Ratio	1:60
Stage Ratio	3
Min. Gas Inlet Pressure bar [Psi]	5.5 [80]
Max. Gas Inlet Pressure bar[psi]	3.3 x P_a
Calculation Gas Outlet	30 x P_a + 3 x P_s
Displacement Volume Cm^3	190
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

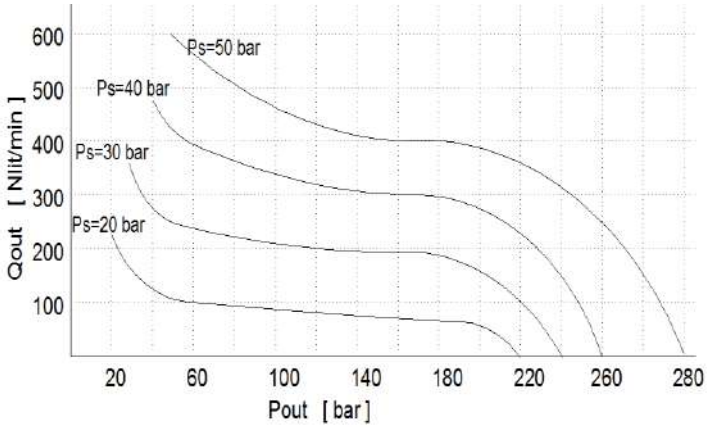


OPET MODEL: OGT1- 15-30

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-15-30
Pressure Ratio	1:15/1:30
Max. Compression Ratio	1:40
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	8.5 [123]
Max. Gas Inlet Pressure bar[psi]	7.5 x P_a
Calculation Gas Outlet	30 x P_a + 2 x P_s
Displacement Volume Cm^3	137
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

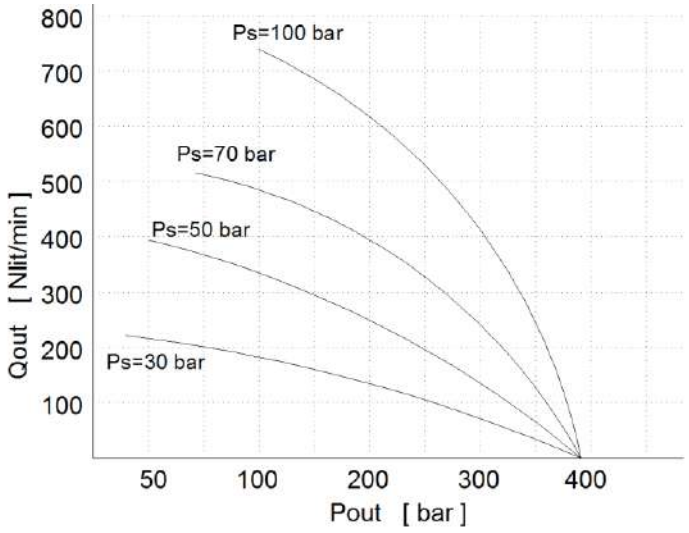


OPET MODEL: OGS2- 65

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 65
Pressure Ratio	1:65
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	25 [360]
Max. Gas Inlet Pressure bar[psi]	455 [6,600]
Calculation Gas Outlet	65 x P_a
Displacement Volume Cm^3	70
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	13

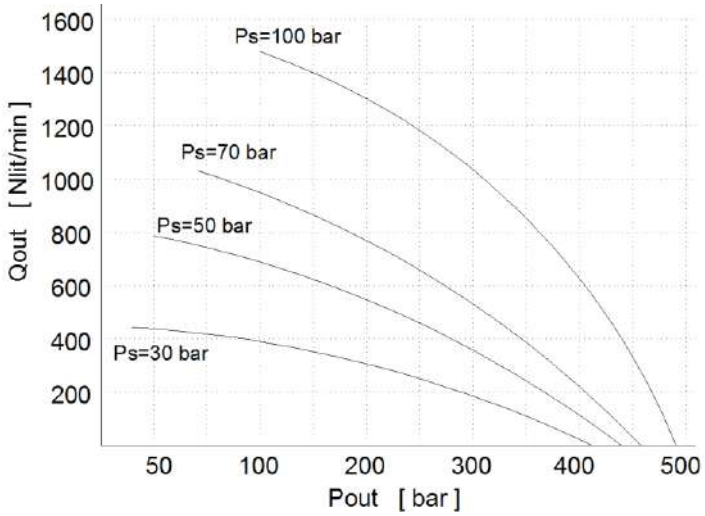


OPET MODEL: OGD2- 65

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 65
Pressure Ratio	1:65
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	25 [360]
Max. Gas Inlet Pressure bar[psi]	455 [6,600]
Calculation Gas Outlet	65 x P_a + P_s
Displacement Volume Cm^3	130
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

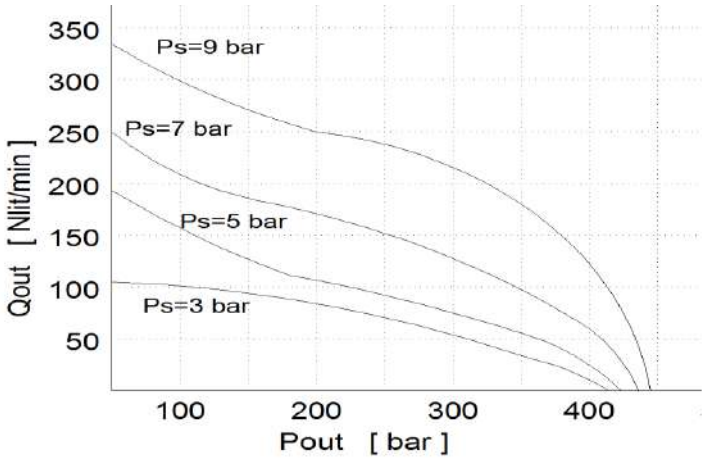


OPET MODEL: OGT2- 10-65

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 10-65
Pressure Ratio	1:10/1:60
Max. Compression Ratio	1:100
Stage Ratio	6.5
Min. Gas Inlet Pressure bar [Psi]	5.5 [80]
Max. Gas Inlet Pressure bar[psi]	1.5 x P_a
Calculation Gas Outlet	65 x P_a + 6 x P_s
Displacement Volume Cm^3	400
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

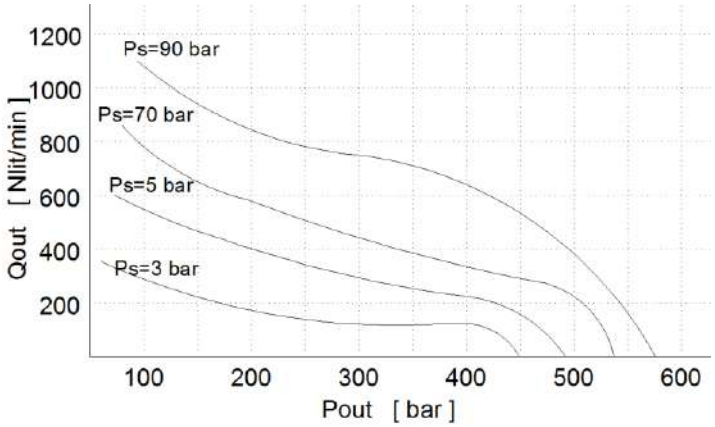


OPET MODEL: OGT2- 30-65

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-30-65
Pressure Ratio	1:30/1:65
Max. Compression Ratio	1:40
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	16.8 [244]
Max. Gas Inlet Pressure bar[psi]	15 x P_a
Calculation Gas Outlet	65 x P_a + 2 x P_s
Displacement Volume Cm^3	137
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

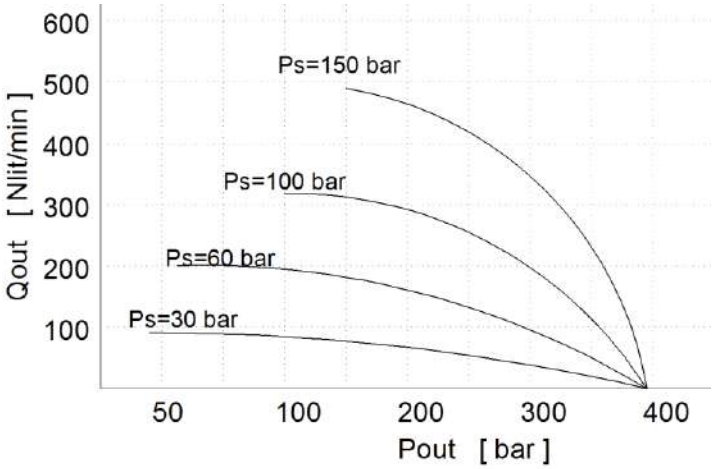


OPET MODEL: OGS1- 65

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 65
Pressure Ratio	1:65
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	30 [435]
Max. Gas Inlet Pressure bar[psi]	455 [6,600]
Calculation Gas Outlet	65 x P_a
Displacement Volume Cm^3	30
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	13

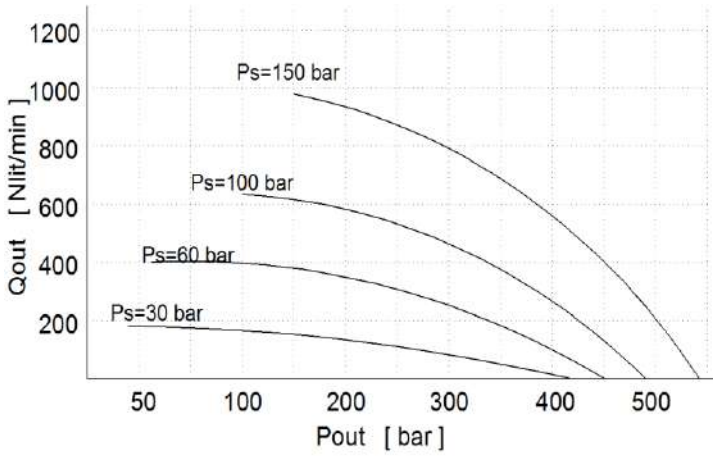


OPET MODEL: OGD1- 65

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 65
Pressure Ratio	1:65
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	30 [435]
Max. Gas Inlet Pressure bar[psi]	455 [6,600]
Calculation Gas Outlet	65 x P_a + P_s
Displacement Volume Cm^3	60
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

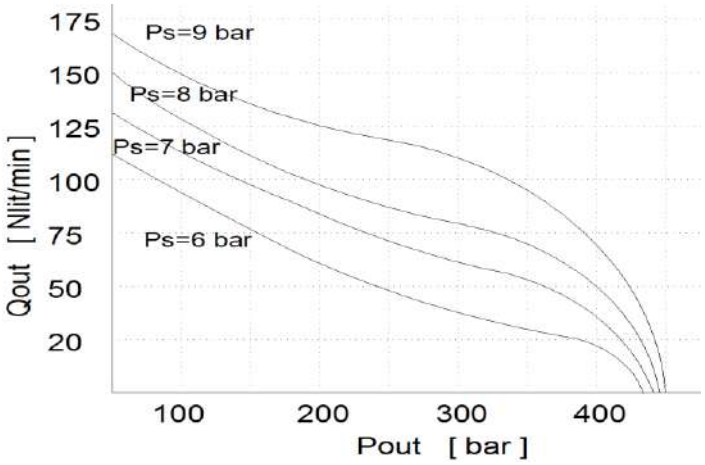


OPET MODEL: OGT1- 10-65

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-10-65
Pressure Ratio	1:10/1:65
Max. Compression Ratio	1:100
Stage Ratio	6.5
Min. Gas Inlet Pressure bar [Psi]	4.8 [70]
Max. Gas Inlet Pressure bar[psi]	1.5 x P_a
Calculation Gas Outlet	65 x P_a+ 6.5x P_s
Displacement Volume Cm^3	125
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

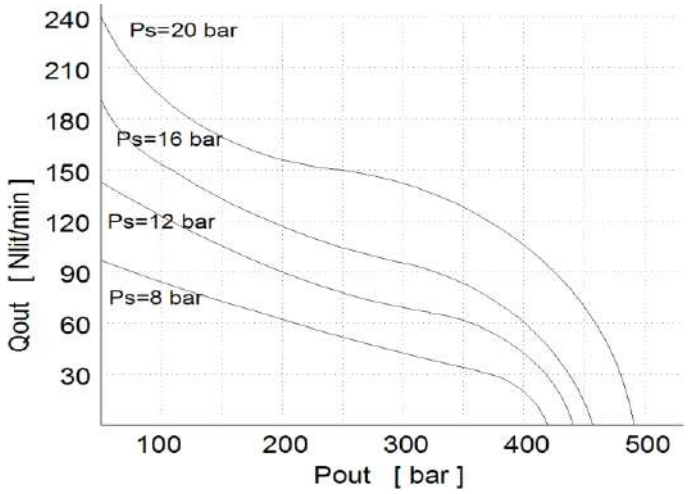


OPET MODEL: OGT1- 15-65

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-15-65
Pressure Ratio	1:15/1:65
Max. Compression Ratio	1:100
Stage Ratio	4.33
Min. Gas Inlet Pressure bar [Psi]	7.5 [110]
Max. Gas Inlet Pressure bar[psi]	3.5 x P_a
Calculation Gas Outlet	55 x P_a + 4 x P_s
Displacement Volume Cm^3	125
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

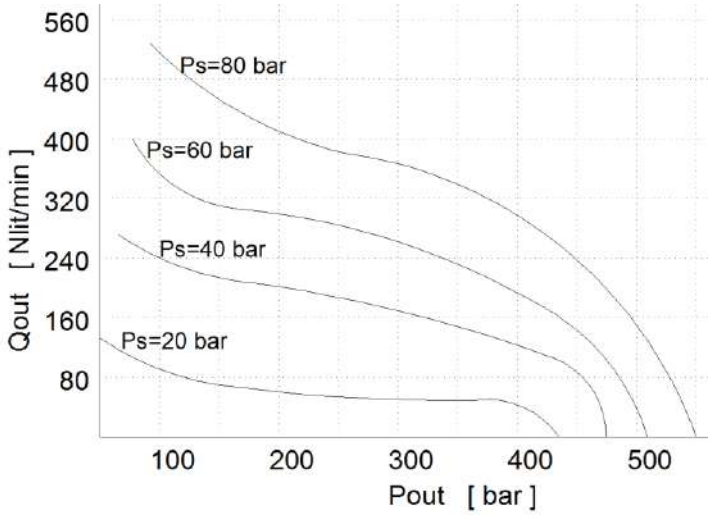


OPET MODEL: OGT1- 30-65

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-30-65
Pressure Ratio	1:30/1:65
Max. Compression Ratio	1:50
Stage Ratio	2
Min. Gas Inlet Pressure bar [Psi]	13.3 [193]
Max. Gas Inlet Pressure bar[psi]	15 x P_a
Calculation Gas Outlet	75 x P_a +2 x P_s
Displacement Volume Cm^3	65
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

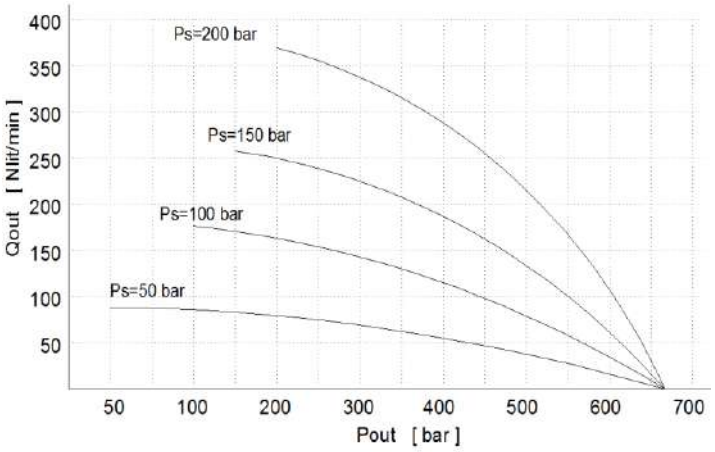


OPET MODEL: OGS1- 110

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 110
Pressure Ratio	1:110
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	55 [800]
Max. Gas Inlet Pressure bar[psi]	770 [11,000]
Calculation Gas Outlet	110 x P_a
Displacement Volume Cm^3	30
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	¼ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

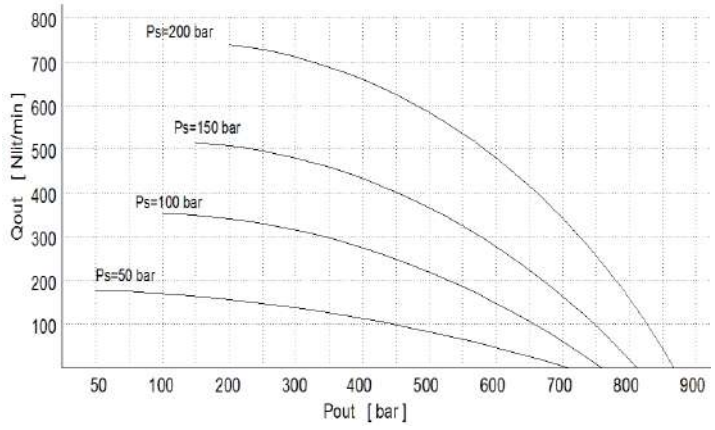


OPET MODEL: OGD1- 110

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 110
Pressure Ratio	1:110
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	55 [800]
Max. Gas Inlet Pressure bar[psi]	770 [11,000]
Calculation Gas Outlet	110 x P_a + P_s
Displacement Volume Cm^3	60
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	¼ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

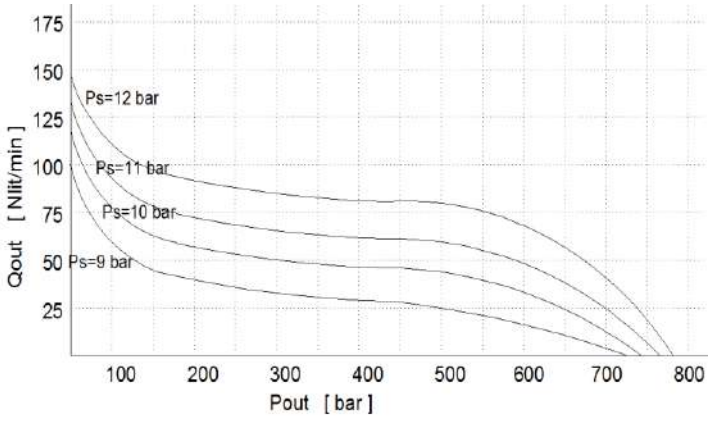


OPET MODEL: OGT1- 15-110

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 15-110
Pressure Ratio	1:15/1:110
Max. Compression Ratio	1:100
Stage Ratio	7.2
Min. Gas Inlet Pressure bar [Psi]	7.7 [110]
Max. Gas Inlet Pressure bar[psi]	2 x P_a
Calculation Gas Outlet	110xP_a+ 7 xP_s
Displacement Volume Cm^3	250
Gas Inlet Connection	1/2NPT-female
Gas Outlet Connection	¼ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

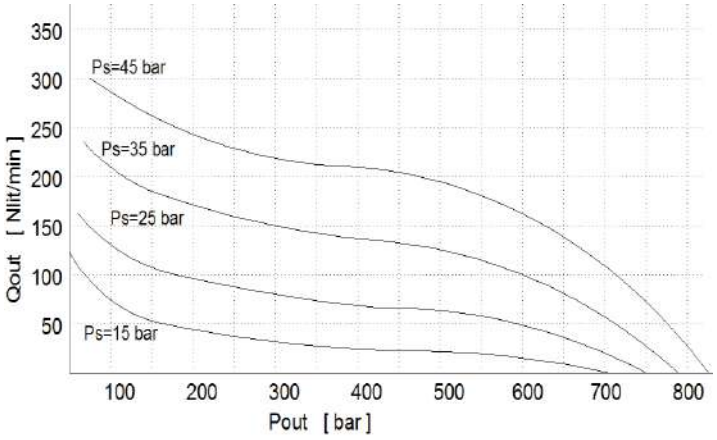


OPET MODEL: OGT1- 30-110

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 30-110
Pressure Ratio	1:30/1:110
Max. Compression Ratio	1:100
Stage Ratio	3.6
Min. Gas Inlet Pressure bar [Psi]	13.8 [200]
Max. Gas Inlet Pressure bar[psi]	8 x P_a
Calculation Gas Outlet	110xP_a+ 3.6xP_s
Displacement Volume Cm^3	125
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	¼ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

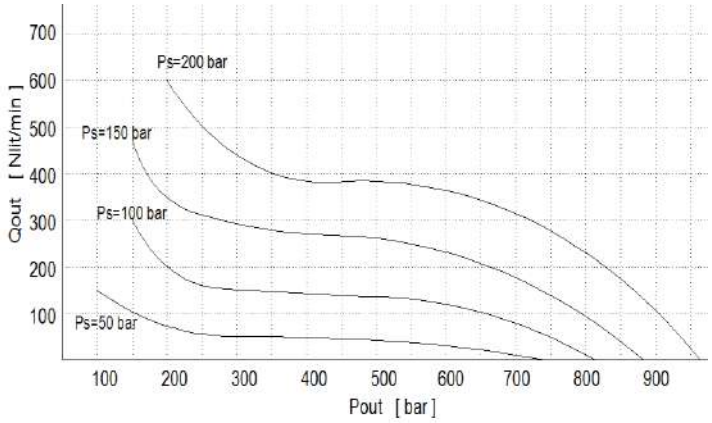


OPET MODEL: OGT1- 65-110

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-65-110
Pressure Ratio	1:65/1:110
Max. Compression Ratio	1:50
Stage Ratio	1.7
Min. Gas Inlet Pressure bar [Psi]	31 [450]
Max. Gas Inlet Pressure bar[psi]	38 x P_a
Calculation Gas Outlet	110xP_a+1.7xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	¼ NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

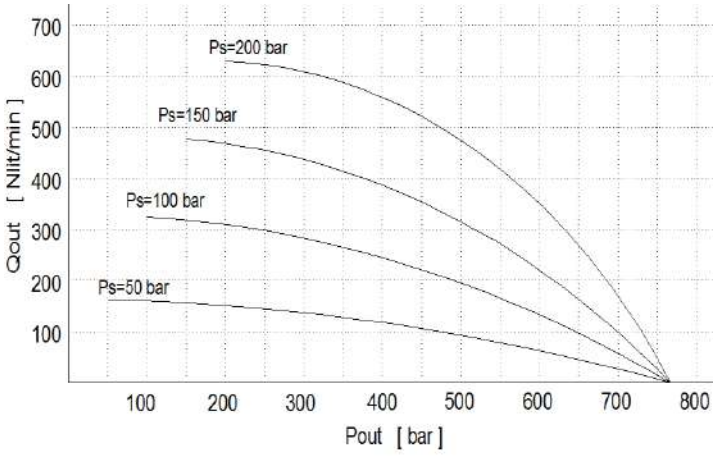


OPET MODEL: OGS2- 110

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 110
Pressure Ratio	1:110
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	47 [680]
Max. Gas Inlet Pressure bar[psi]	770 [11,000]
Calculation Gas Outlet	110 x P_a
Displacement Volume Cm^3	30
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

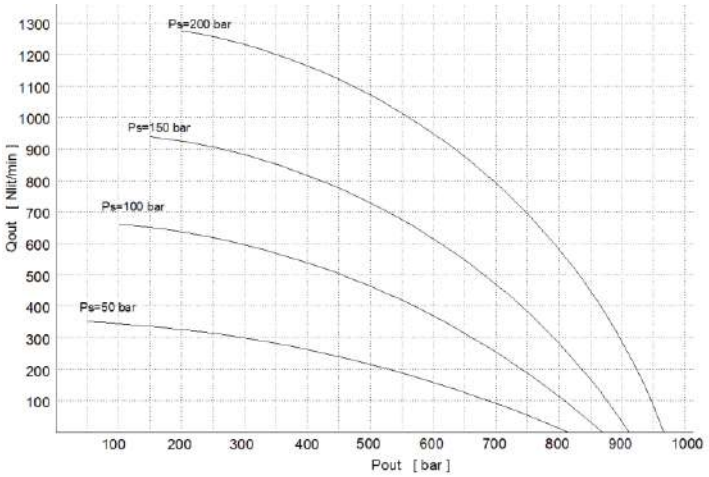


OPET MODEL: OGD2- 110

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 110
Pressure Ratio	1:110
Max. Compression Ratio	1:20
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	47 [680]
Max. Gas Inlet Pressure bar[psi]	770 [11,000]
Calculation Gas Outlet	110 x P_a + P_s
Displacement Volume Cm^3	60
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

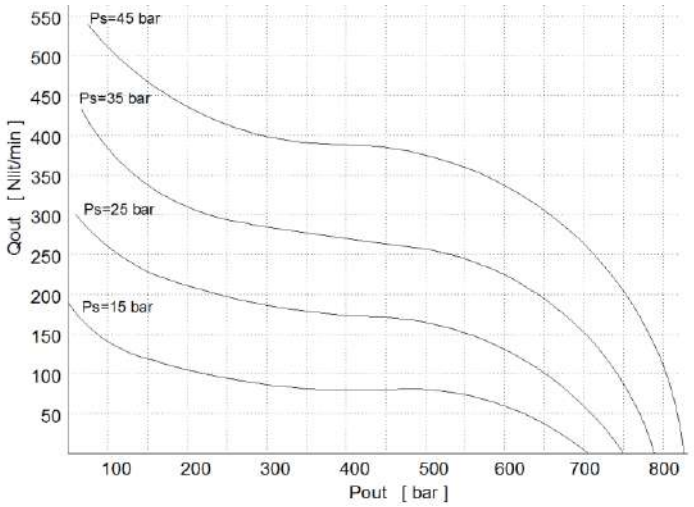


OPET MODEL: OGT2- 30-110

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 30-110
Pressure Ratio	1:30/1:110
Max. Compression Ratio	1:100
Stage Ratio	3.6
Min. Gas Inlet Pressure bar [Psi]	14 [200]
Max. Gas Inlet Pressure bar[psi]	8 x P_a
Calculation Gas Outlet	110xP_a+ 3.6xP_s
Displacement Volume Cm^3	125
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

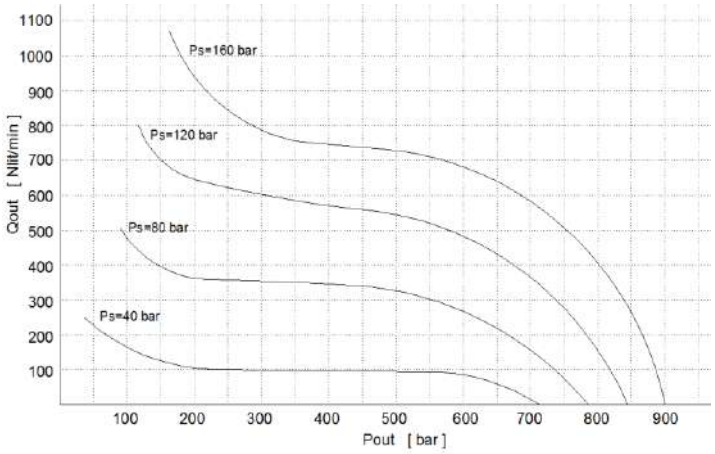


OPET MODEL: OGT2- 65-110

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-65-110
Pressure Ratio	1:65/1:110
Max. Compression Ratio	1:50
Stage Ratio	1.7
Min. Gas Inlet Pressure bar [Psi]	25 [360]
Max. Gas Inlet Pressure bar[psi]	38 x P_a
Calculation Gas Outlet	110xP_a+1.7xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	½ NPT-female
Gas Outlet Connection	3/8NPT-female
Air Drive Connection	¾ NPT-female
Net Weight Kg	34

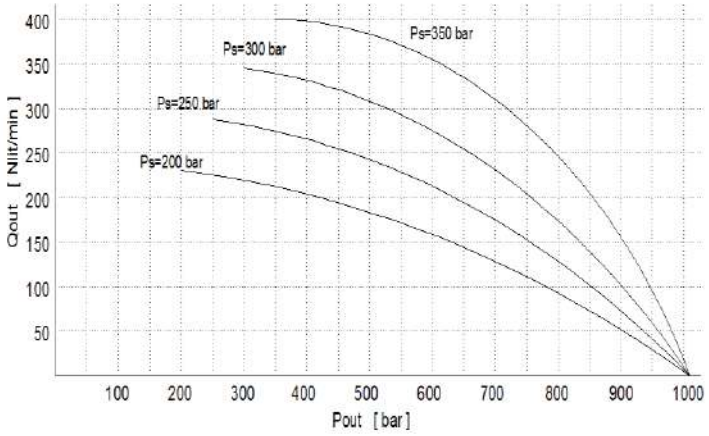


OPET MODEL: OGS1- 170

Single Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS1- 170
Pressure Ratio	1:170
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	84 [2900]
Max. Gas Inlet Pressure bar[psi]	1200 [17,400]
Calculation Gas Outlet	170 x P_a
Displacement Volume Cm^3	18
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	20

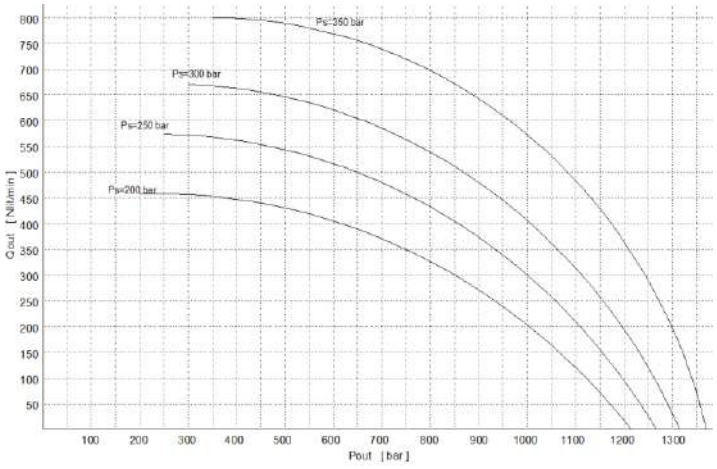


OPET MODEL: OGD1- 170

Double Acting Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD1- 170
Pressure Ratio	1:170
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	84 [2900]
Max. Gas Inlet Pressure bar[psi]	1200 [17,400]
Calculation Gas Outlet	170 x P_a + P_s
Displacement Volume Cm^3	36
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

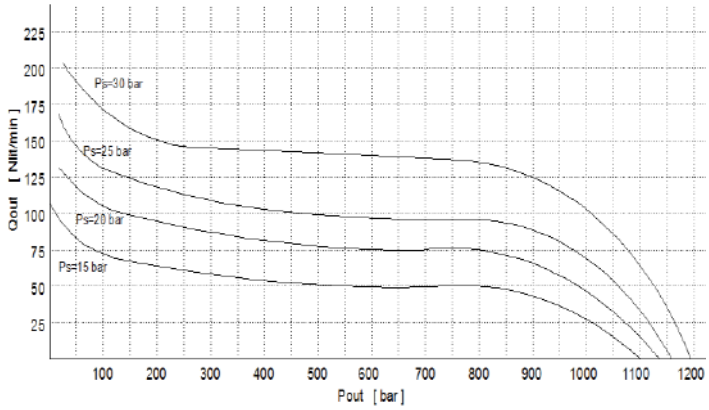


OPET MODEL: OGT1- 30-170

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1- 30-170
Pressure Ratio	1:30/1:170
Max. Compression Ratio	1:100
Stage Ratio	5.6
Min. Gas Inlet Pressure bar [Psi]	14 [200]
Max. Gas Inlet Pressure bar[psi]	5.3 x P_a
Calculation Gas Outlet	170xP_a+ 5.6xP_s
Displacement Volume Cm^3	100
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

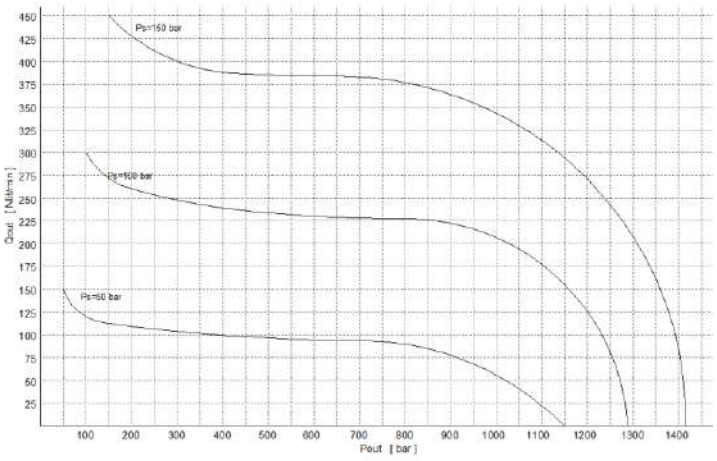


OPET MODEL: OGT1- 65-170

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-65-170
Pressure Ratio	1:65/1:170
Max. Compression Ratio	1:50
Stage Ratio	2.6
Min. Gas Inlet Pressure bar [Psi]	31 [450]
Max. Gas Inlet Pressure bar[psi]	25 x P_a
Calculation Gas Outlet	110xP_a+2.6xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

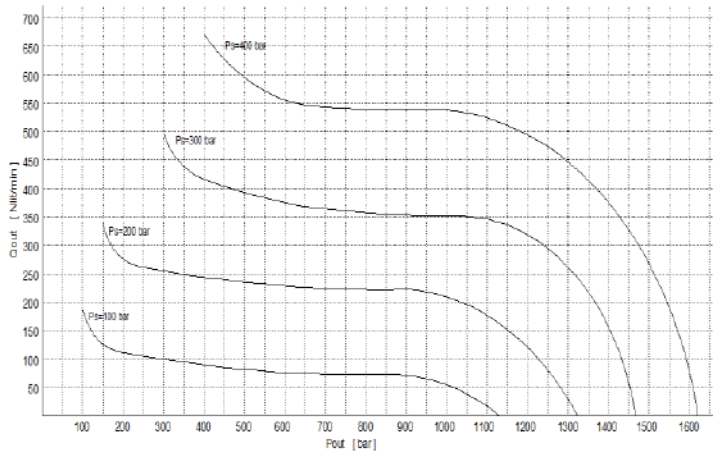


OPET MODEL: OGT1- 110-170

Two Stages Booster with Single Air Drive Head

Q_a= Air Flow — Q_a = 2700 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT1-110-170
Pressure Ratio	1:110/1:170
Max. Compression Ratio	1:50
Stage Ratio	1.5
Min. Gas Inlet Pressure bar [Psi]	54 [780]
Max. Gas Inlet Pressure bar[psi]	72 x P_a
Calculation Gas Outlet	110xP_a+1.5xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	27

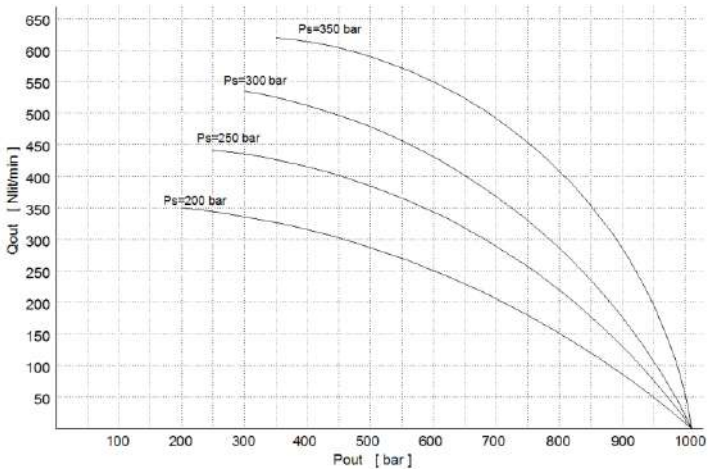


OPET MODEL: OGS2- 170

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 170
Pressure Ratio	1:170
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	84 [2900]
Max. Gas Inlet Pressure bar[psi]	1200 [17,400]
Calculation Gas Outlet	170 x P_a
Displacement Volume Cm^3	25
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

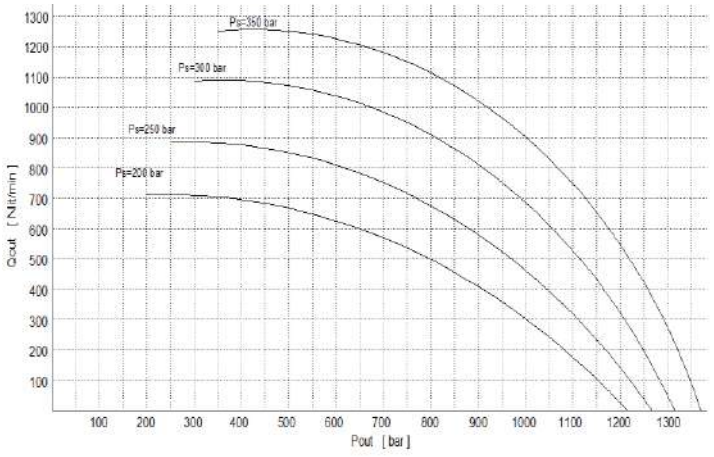


OPET MODEL: OGD2- 170

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 170
Pressure Ratio	1:170
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	84 [2900]
Max. Gas Inlet Pressure bar[psi]	1200 [17,400]
Calculation Gas Outlet	170 x P_a + P_s
Displacement Volume Cm^3	50
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

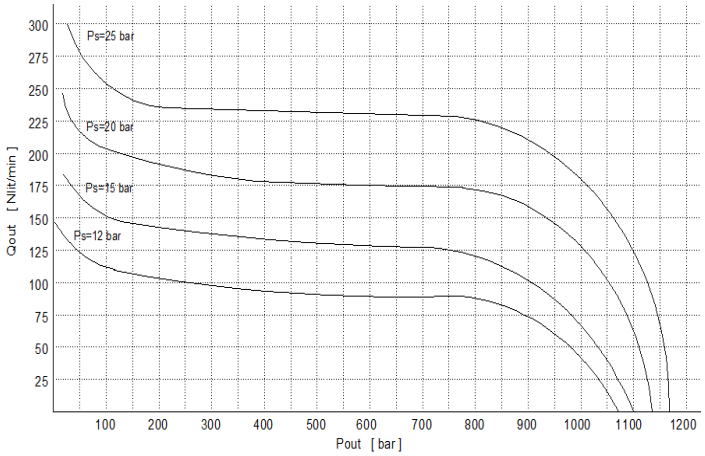


OPET MODEL: OGT2- 30-170

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2- 30-170
Pressure Ratio	1:30/1:170
Max. Compression Ratio	1:100
Stage Ratio	5.6
Min. Gas Inlet Pressure bar [Psi]	14 [200]
Max. Gas Inlet Pressure bar[psi]	5 x P_a
Calculation Gas Outlet	170xP_a+ 5.6xP_s
Displacement Volume Cm^3	160
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

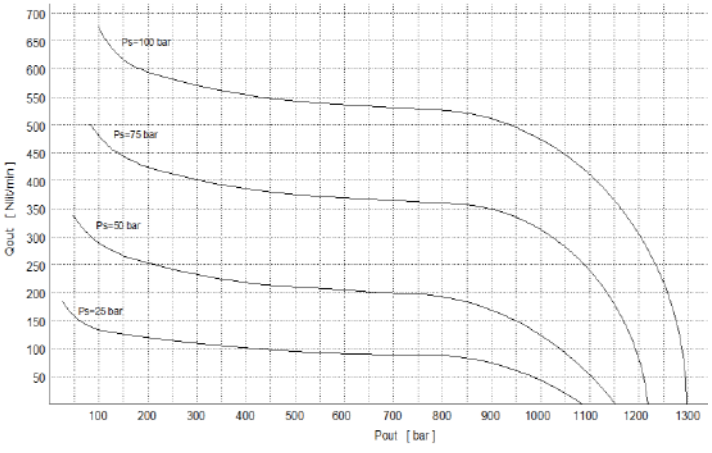


OPET MODEL: OGT2- 65-170

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-65-170
Pressure Ratio	1:65/1:170
Max. Compression Ratio	1:50
Stage Ratio	2.6
Min. Gas Inlet Pressure bar [Psi]	21 [300]
Max. Gas Inlet Pressure bar[psi]	16 x P_a
Calculation Gas Outlet	170xP_a+2.6xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

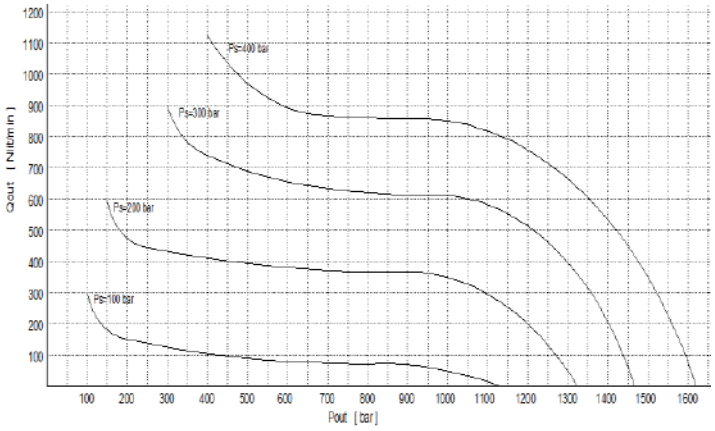


OPET MODEL: OGT2- 110-170

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-110-170
Pressure Ratio	1:110/1:170
Max. Compression Ratio	1:20
Stage Ratio	1.5
Min. Gas Inlet Pressure bar [Psi]	54 [780]
Max. Gas Inlet Pressure bar[psi]	63 x P_a
Calculation Gas Outlet	170xP_a+1.5xP_s
Displacement Volume Cm^3	30
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

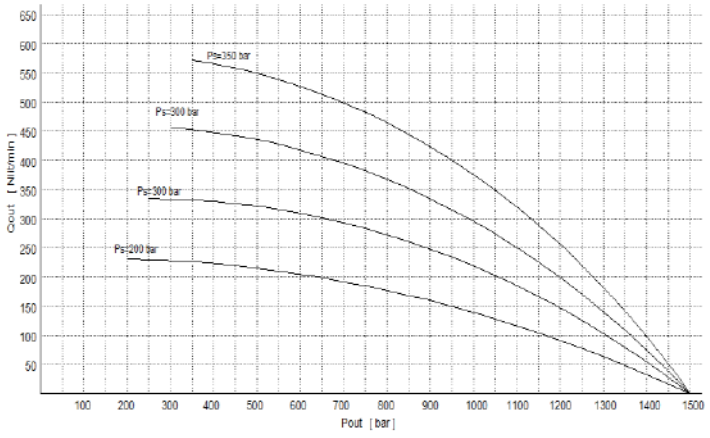


OPET MODEL: OGS2- 250

Single Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS2- 250
Pressure Ratio	1:250
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	125 [1800]
Max. Gas Inlet Pressure bar[psi]	1750 [25,400]
Calculation Gas Outlet	250 x P_a
Displacement Volume Cm^3	12
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	26

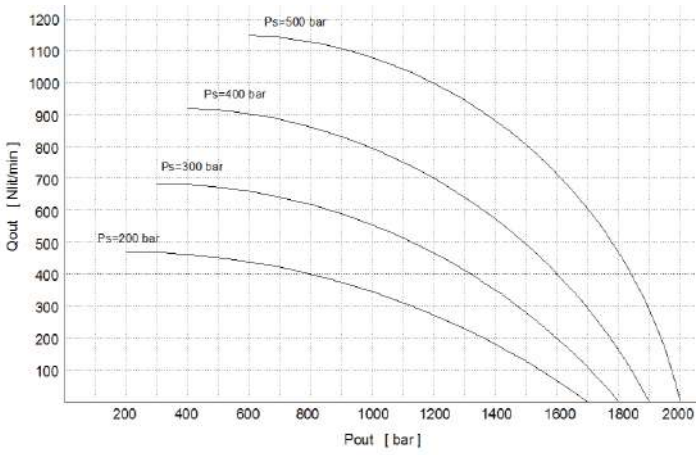


OPET MODEL: OGD2- 250

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD2- 250
Pressure Ratio	1:250
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	125 [1800]
Max. Gas Inlet Pressure bar[psi]	1750 [25,400]
Calculation Gas Outlet	250 x P_a + P_s
Displacement Volume Cm^3	25
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

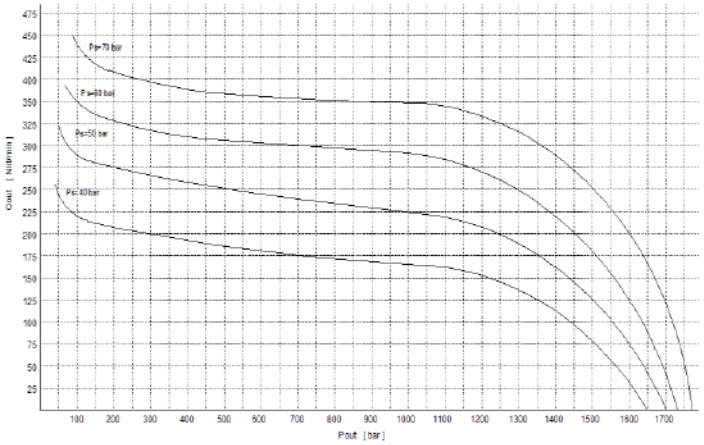


OPET MODEL: OGT2- 65-250

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-65-250
Pressure Ratio	1:65/1:250
Max. Compression Ratio	1:50
Stage Ratio	3.8
Min. Gas Inlet Pressure bar [Psi]	35 [500]
Max. Gas Inlet Pressure bar[psi]	17 x P_a
Calculation Gas Outlet	250xP_a+3.8xP_s
Displacement Volume Cm^3	65
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

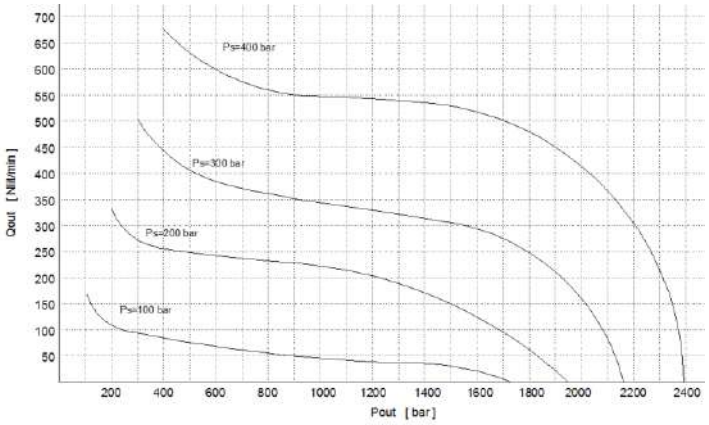


OPET MODEL: OGT2- 110-250

Two Stages Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 5300 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT2-110-250
Pressure Ratio	1:110/1:250
Max. Compression Ratio	1:25
Stage Ratio	2.2
Min. Gas Inlet Pressure bar [Psi]	70 [1000]
Max. Gas Inlet Pressure bar[psi]	47 x P_a
Calculation Gas Outlet	250xP_a+2.2xP_s
Displacement Volume Cm^3	30
Gas Inlet Connection	3/8NPT-female
Gas Outlet Connection	3/4-16 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	33

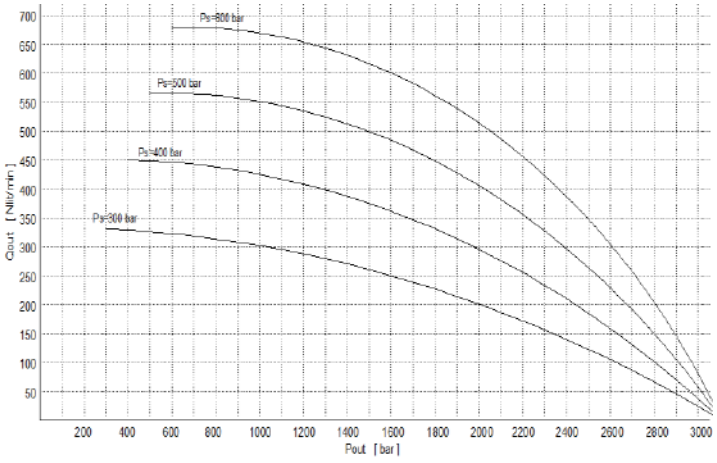


OPET MODEL: OGS3- 520

Single Acting Booster with Triplex Air Drive Head

Q_a= Air Flow — Q_a = 7800 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGS3- 520
Pressure Ratio	1:520
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	260 [3770]
Max. Gas Inlet Pressure bar[psi]	3640 [53,000]
Calculation Gas Outlet	520 x P_a
Displacement Volume Cm^3	10
Gas Inlet Connection	9/16-18 UNF
Gas Outlet Connection	9/16-18 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	32

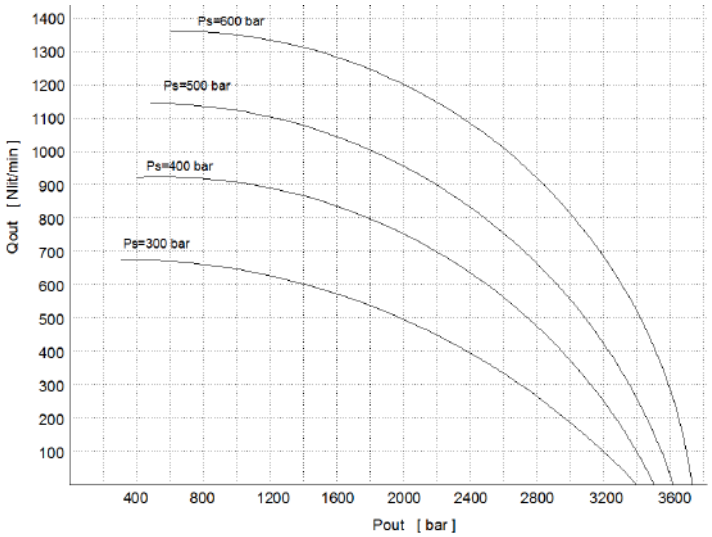


OPET MODEL: OGD3- 520

Double Acting Booster with Tandem Air Drive Head

Q_a= Air Flow — Q_a = 7800 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGD3- 520
Pressure Ratio	1:520
Max. Compression Ratio	1:15
Stage Ratio	-
Min. Gas Inlet Pressure bar [Psi]	260 [3770]
Max. Gas Inlet Pressure bar[psi]	3640 [53,000]
Calculation Gas Outlet	520 x P_a + P_s
Displacement Volume Cm^3	20
Gas Inlet Connection	9/16-18 UNF
Gas Outlet Connection	9/16-18 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	40

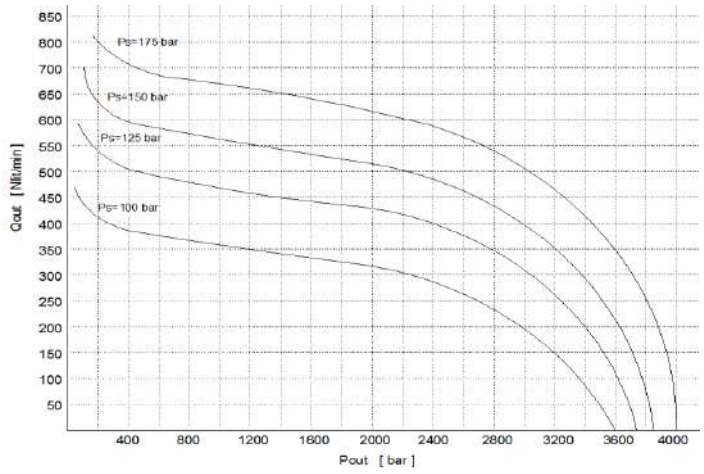


OPET MODEL: OGT3- 110-520

Two Stages Booster with Triplex Air Drive Head

Q_a= Air Flow — Q_a = 7800 N lit/min
P_a = Air Pressure — P_a = 6 bar
P_s = supply Pressure
P_O= Output pressure

SPECIFICATION OF	OGT3-110-520
Pressure Ratio	1:110/1:520
Max. Compression Ratio	1:60
Stage Ratio	4.7
Min. Gas Inlet Pressure bar [Psi]	60 [900]
Max. Gas Inlet Pressure bar[psi]	23 x P_a
Calculation Gas Outlet	520xP_a+4.7xP_s
Displacement Volume Cm^3	36
Gas Inlet Connection	3/4 -16 UNF
Gas Outlet Connection	9/16-18 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	40



OPET MODEL: OGT3- 170-520

Two Stages Booster with Triplex Air Drive Head

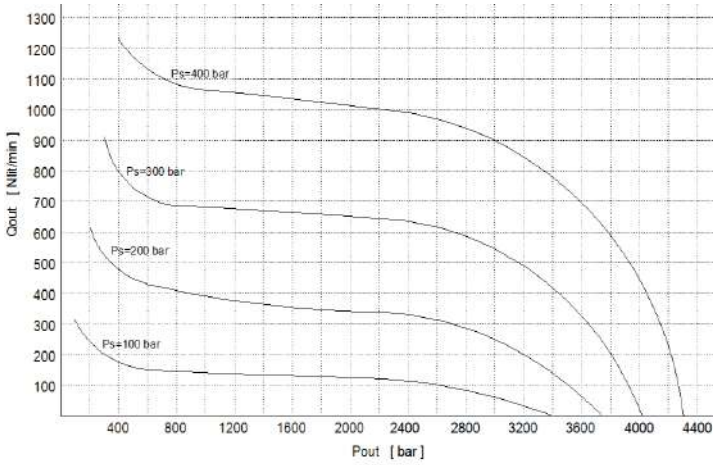
Q_a= Air Flow — Q_a = 7800 N lit/min

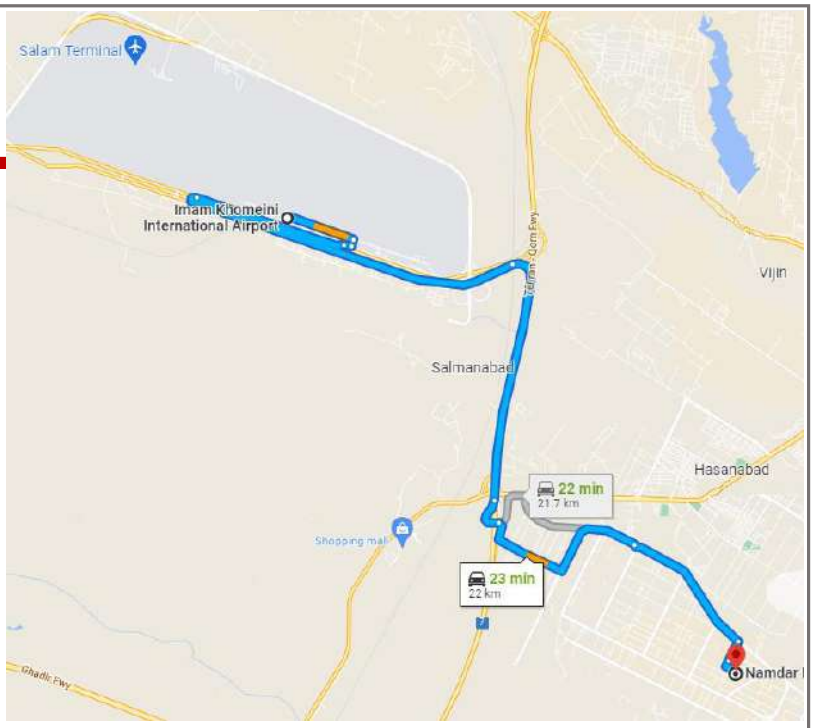
P_a = Air Pressure — P_a = 6 bar

P_s = supply Pressure

P_O= Output pressure

SPECIFICATION OF	OGT3-170-520
Pressure Ratio	1:170/1:520
Max. Compression Ratio	1:40
Stage Ratio	3
Min. Gas Inlet Pressure bar [Psi]	94 [1360]
Max. Gas Inlet Pressure bar[psi]	56 x P_a
Calculation Gas Outlet	$520xP_a+3xP_s$
Displacement Volume Cm^3	30
Gas Inlet Connection	3/4-16 UNF
Gas Outlet Connection	9/16-18 UNF
Air Drive Connection	¾ NPT-female
Net Weight Kg	40





OPET Products:

- Pneumatic Driven Pumps Up to 10,000 bar (150,000 Psi)
- Pneumatic Driven Gas Boosters up to 1,500 bar (22,500 Psi)
- High pressure Needle Valves up to 14,000 bar(200,000 Psi)
- High pressure Connectors up to 14,000 bar (200,000 Psi)
- Hydraulic Driven Pumps up to 10,000 bar (150,000 Psi) on request
- Hydraulic Driven Gas Boosters up to 4,000 bar (60,000 Psi)
- Industrial Valve and Safety Valve Test Bench (1/2” up to 56”)
- ESD , BOP , SSV ,SSSV test Bench
- Injection unit
- Workshop Pressure Unit
- Portable Pressure test (Light Weight / medium Weight)
- Hose Test Bench / tube and fitting test bench
- High pressure Power Units