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MARUTI™ PNEUMATICS

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Quality
Meets Excellence

MARUTI™ PNEUMATICS

AIR DRIVEN GAS BOOSTER PUMP & AIR AMPLIFIER

Quality

Efficiency

Reliability

COMPANY PROFILE

GET TO KNOW ABOUT MARUTI PNEUMATICS :

MARUTI PNEUMATICS is an asian listed enterprise, which was established in gujarat in 2018, focusing on High Pressure Compressor revolutionary, sustainable & energy saving technology. MARUTI PNEUMATICS provides products, services and complete packages for compressed Air & Gas. We have a fundamental belief in environmental sustainability providing equipment & accessories with the highest reliability & efficiency that will meet the needs of industry now and in to the future helping to preserve our precious energy reserves.

Our products are designed for long life running and suitable for high temperature, high pressure, widely used in all kind of industry. **MARUTI PNEUMATICS** specialize and focus on R&D. design & manufacturer of Oil Free gas Booster Pump, Air Amplifire, Liquid/Fluid Booster pump, High Pressure valves, Fittings, Storage tank & cylinders, Air Compressor High Pressure Booster, Oil Free Gas Compressor, Oil Lubricated Gas Compressor and other high - pressure accessories. Though professional design and strict quality control system, we ensure that the technical performance and reliability of each compressor are best in class and our quality is always in the leading position in the industry.

After years of Hard work, **MARUTI PNEUMATICS** has become an industry leader and has established list of regular customer from around the globe. Our products are being used in Oil & Gas, Petrochemical, Energy, Mining, Aerospace, Military, Automotive, Firefighting, Pharmaceutical, Chemical, Food, Fishing, Agriculture, Plastic, Packaging, Ceramic, Textile, Wood Crafting, Kitchen ware, High pressure Test, Electronic Manufacturing, Date centers, each large & medium scale manufacturing industries with pneumatics machinery and conventional Hydraulic machinery Industries.

LEADERSHIP COMMENTRY:

Our mission at **MARUTI PNEUMATICS** is to revolutionize the industry by integrating modern technologies and sustainable practices into our production processes, We aim to lead the transition towards smart manufacturing by developing advances automation systems, AI- driven analytics, and lo T-eneales equipment that enhance efficiency and precision, Our commitment to sustainability drives us minimize our carbon foorprint through energy efficient designs and eco-friendly materials, ensuring our operations and products contribute positively to the environment. By fostering innovation and prioritizing customer centric solutions, we strive to set new industry standards, drive growth, and deliver unparalleled value to our clients. Ultimately, our vision is to be at the forefront of technological advancement while promoting a greener, more connected future in industrial manufacturing.

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DESH KA *Bharosa...*

Application Industries (Typical)

01 Pressure Testing

02 Hydraulic Tools

03 Automotive Industry

04 Chemical Industry

05 Oil & Gas

06 Refrigerant Charging

07 New Energy

08 Aerospace & Defense

Descriptions of the Boosters :

Features :

- Suitable for most gases **(Air, N2, He, CO2, Ne, Ar, O2, H2,CH4, Natural Gas...).**
- Pressure Range : **58 psig (4 Bar) to 39000 psig (2689 Bar)**
- **Single, double acting, and two-stage models.**
- Reliable, easy to maintain, compact and robust.
- No heat, flame or spark risk.
- Infinitely variable cycling speed and output.
- Air driven boosters are an efficient alternative instead of electrically driven products and can be used in explosion proof areas. Easy to apply automatic controls.
- No limit or adverse affect to continuous stop/start applications.
- Seal systems designed for long working life.
- Separation between air and gas sections.
- Built-in cooling system.
- Ability to stall at any predetermined pressure and hold the fixed pressure without consuming power or generating heat.
- ATEX approved, CE certified.
- There is no lubrication in the gas section. It will not pollute the gas and ensure the high purity of the gas.
- The gas supply can be used to extremely low pressure, which improves the gas utilization.

Technical Description

There are two distinct sections: **the air - driven section** and **the gas barrel section.**

Air - Driven Section:

Under normal circumstances, the seals of the air - driven cylinder should operate reliably within the temperature range of (25°F-150°F)(-4°C-65°C).

Note: Lower temperature will cause driving gas leakage; higher temperature will shorten the seal life.

MARUTI PNEUMATICS recommends following the ISO 8573.1 standard, with the driving gas quality not lower than grade 4. In extremely low- temperature working conditions, please consult us.

Gas Barrel Section:

Generally, low temperature has less impact on parts and seals. The heat generated by gas compression is beneficial to the cylinder parts and seals, but the maximum allowable operating temperature is 115°C (240°F). Under normal circumstances, internal exhaust cooling is used, which can keep the temperature from exceeding this value. In special cases, water cooling can also be selected.

Warning: It is not allowed for the inlet pressure to be lower than the "Minimum Inlet Pressure" value in the selection table, as this may damage the equipment. Because each air pump has a fixed maximum compression ratio. When the supply pressure is too low, the gas in the high-pressure cylinder cannot be pressurized to a certain pressure, and the high-pressure piston moves back and forth without being able to output gas. The gas will be repeatedly compressed/released under high pressure.

Working Frequency:

The maximum stroke frequency is 100 times per minute, based on a 50% work load. For long-term operation or high - load working conditions, it is recommended that the downward stroke frequency does not exceed 60 times per minute.

Structure Introduction

Multiple model Options: MARUTI PNEUMATICS air Driven Gas Booster Pumps have a variety of models, allowing the best pump to be selected for each application.

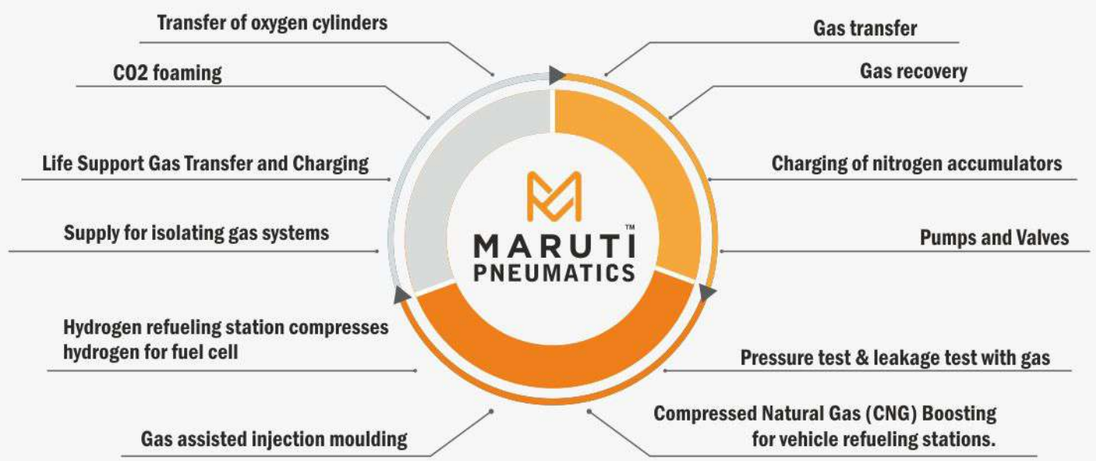
Flexible Configuration: Single-stage, double-acting, or double-stage booster pumps, or combinations of these forms, can be used to achieve different working pressures and flow rates.

Basic Model: The single- acting, single - drive pump is the basic form of the pump.

Efficient Output: The double - acting single-stage pump has twice the output flow rate of the single - acting single-stage pump.

High-Pressure Performance: Double-stage pumps have a high gas compression ratio and high pressure.

Applications



Model Code Explanation

All model codes listed in the legends later in this manual are standard models.

Working Condition Type Expansion:

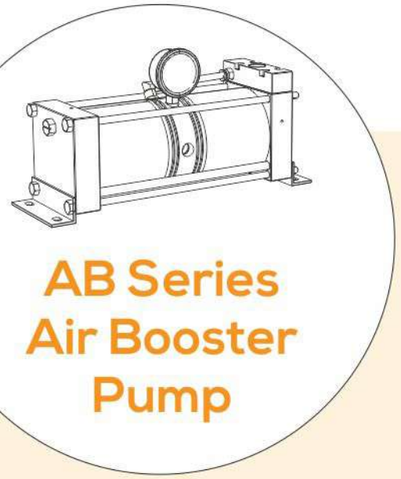
- For applications in oxygen working conditions, add **"O2"** after the model.
- For applications in hydrogen working conditions, add **"H2"** after the model.

Material Replacement Requirement: Add **"-V"** after the model (replace all static and dynamic nitrile rubbers in the air - pump drive part with fluororubber seals).

Special Interface Requirement: Add **"-X"** after the model (needs to have an external pilot interface in the air drive part).

Custom Service Instructions:

Other sizes, materials, and types of pumps can be provided according to customer requirements. If there are special requirements, **please contact us.**



AB Series Air Booster Pump

Air Amplifier of AB Series

AB series air booster pump is a device that uses the same air source as the driving air and the air intake source to achieve self-pressurization of air pressure. It converts the flow of compressed air into pressure. It has the characteristics of low operating cost, safety and reliability, compact structure, high stability and simple maintenance.

Powered by compressed air (no lubrication required) and self-pressurized, low cost, economical and fast

Air drive does not generate heat, sparks or flamesduring the pressurization process and press surization is safe.

The parts and seals are of high quality, ensuring the stability and durability of the product.

The pressure and flow rate adjustment range is wide and the compressed air can be pressurized and the maximum output flow rate can reach 1450N L/Min.

Main features:

- Output Flow rate up to 1450 NL/min
- Drive pressure 1-8.3 Bar (14.5 - 120 psi)
- AB series standard products, order code such as: AB04 (series code + boost ratio)

Special piping method:

AB series can provide T-type piping, which is 180° with the check valve. Order code such as: AB04T (series code + pressure ratio + piping method code)

Special media inlet and outlet interfaces:

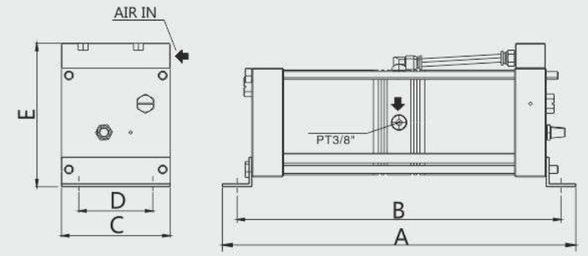
If you need a special interface, please indicate when ordering:

Application Scenario:

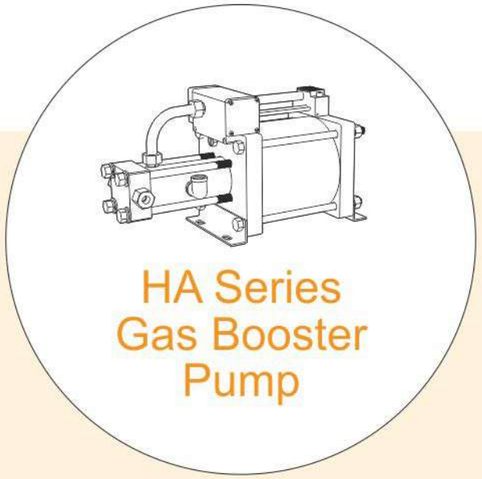
- The AB Series Air Booster Pumps are the simplest and most economical way to boost compressed air to the pressure required for industrial applications.
- Increase injection, molding and increase cylinder speed;
- Air tightness testing of small household appliances;
- Clamping and pressure holding of pneumatic clamps; Hot runner technology in the injection molding industry and PET blow molding;
- Pressure boosting applications in the automation industry;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

Model	Pressure Ratio	Minimum Gas Inlet Pressure Pi (bar)	Maximum Allowable Outlet Pressure Po (bar)	Gas Outlet Pressure Calculation Formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
AB02	2:1	1	16.6	2Pa	PT3/8"	PT3/8"	513@Pi=7
AB03	3:1	1	24.9	3Pa	PT3/8"	PT3/8"	420@Pi=7
4AB02	2:1	1	16.6	2Pa	PT1/2"	PT1/2"	1450@Pi=7
AB04	4:1	1.7	33.2	4Pa	PT3/8"	PT3/8"	382@Pi=7
AB04T	4:1	1.7	41.5	4Pa+Pi	PT1/2"	PT1/2"	710@Pi=7
AB07	7:1	3.4	58.1	7Pa	PT3/8"	PT3/8"	274@Pi=7
AB07T	7:1	3.4	60.1	7Pa+Pi	PT3/8"	PT3/8"	482@Pi=7
AB10	10:1	5	83	10Pa	PT3/8"	PT3/8"	225@Pi=7
AB15	15:1	6	124.5	15Pa	PT3/8"	PT3/8"	185@Pi=7



Model	Actuating air connection (AIR IN)	A	B	C	D	E	F	G	H	Mounting Holes	Weight/Kg
AB02	PT3/8"	358	328	110	75	145	/	/	/	4-ϕ9*20	7
AB03	PT3/8"	473	443	110	75	145	/	/	/	4-ϕ9*20	8
4AB02	G1/2"	472.5	370	172	100	240	91.5	/	/	4-ϕ12*22	16
AB04	G1/2"	391	218	172	100	240	161.5	94	/	4-ϕ12*22	13
AB04T	G1/2"	435.6	218	172	100	240	206.6	94	415	4-ϕ12*22	16
AB07	G1/2"	383	218	172	100	240	154	94	/	4-ϕ12*22	13
AB07T	G1/2"	435.6	218	172	100	240	206.6	94	330	4-ϕ12*22	15



HA Series Gas Booster Pump

Air Driven Gas Booster of HA Series

HA series gas booster pump are compressed air single-driven single-acting gas booster pumps with the advantages of high safety, high output pressure, no energy consumption for pressure maintenance and some products are equipped with gas rapid cooing devices.

Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;

The driving gas does not require lubrication and is completely isolated from the pressurized medium to ensure the cleanliness of the medium;

The maximum output pressure can reach 830bar;

Applicable to various media such as oxygen, nitrogen, methane, carbon dioxide, etc.

The product is reliable, easy to maintain, strong, has a long sealing life, and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 1.0 M3/min Drive pressure 1-8.3 bar (14.5-120.35psi) HA series is single drive piston (160mm).
- The medium temperature is not higher then 115°C(240°F) and order for extremely low temperature must be specified.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet special medium requirements.
- HA series standard products are nitrogen boosted, order code such as: HA40 (series + boost ratio)

Special Product Description:

About the medium: HA series can be used for a variety of media, order code such as: HA30-O2 (series code + boost ratio + boost medium) About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

- HA Series gas Booster Pumps are the suitable for application with high gas source, high output pressure and small flow requirements.
- Air tightness test of various of pressure components;
- Nitrogen filling of high pressure accumulators;
- Filling of diving breathing oxygen cylinders;
- Filling of diving breathing oxygen cylinders;
- Calibration of high pressure safety valves;
- The reaction device is filled with reaction medium;
- Recovery and reuse of spacial gases;

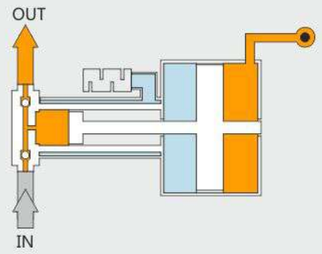
TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
HA02T	2.5:1	0	20.75	2.5Pa+Pi	NPT1/2"	NPT1/2"	522@Pi=7
HA04	4:1	1.2	33.2	4Pa	NPT1/2"	NPT1/2"	354@Pi=7
HA04T	4:1	1.7	41.5	4Pa+Pi	NPT1/2"	NPT1/2"	572@Pi=7
HA07	7:1	3.4	58.1	7Pa	NPT3/8"	NPT3/8"	252@Pi=7
HA07T	7:1	3.4	66.4	7Pa+Pi	NPT3/8"	NPT3/8"	362@Pi=7
HA10	10:1	6..5	83	10Pa	NPT3/8"	NPT3/8"	196@Pi=7
HA15	15:1	8.1	124.5	15Pa	NPT3/8"	NPT3/8"	164@Pi=10
HA30	30:1	18	249	30Pa	NPT1/4"	NPT1/4"	91@Pi=20
HA40	40:1	25	332	40Pa	NPT1/4"	NPT1/4"	156@Pi=40
HA60	60:1	32	498	60Pa	NPT1/4"	NPT1/4"	112@Pi=40
HA75	75:1	32	622	75Pa	NPT1/4"	NPT1/4"	86@Pi=40
HA100	100:1	40	830	100Pa	NPT1/4"	NPT1/4"	65@Pi=40

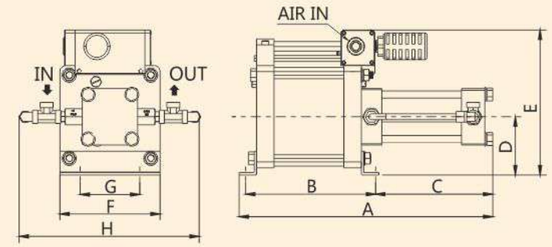
@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

Quality | Efficiency | Reliability

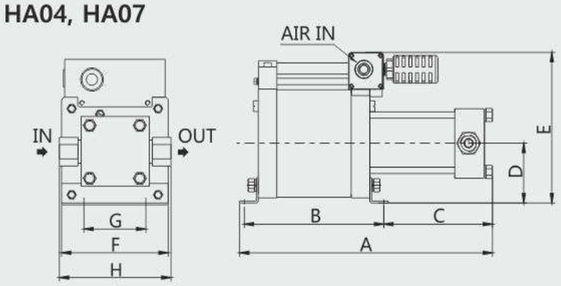
Working Principle



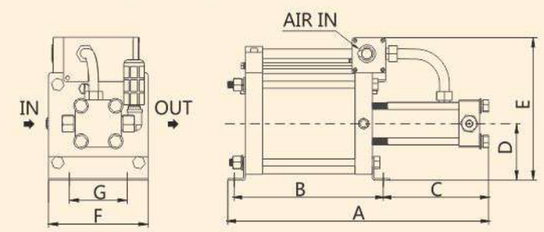
HA02T, HA04T, HA07T



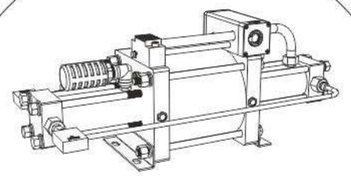
HA04, HA07



HA10, HA15, HA30, HA60, HA100



Installation Size/(mm)												
Model	Actuating air connection (AIR IN)	A	B	C	D	E	F	G	H	Mounting Holes	Cooling Function	Weight /kg
HA02T	G1/2"	448.5	218	219.5	94	240	172	100	420	4-φ12*22	×	24
HA04	G1/2"	391	218	161.5	94	240	172	100	180	4-φ12*22	×	15
HA04T	G1/2"	435.5	218	206.5	94	240	172	100	360	4-φ12*22	×	20
HA07	G1/2"	462	258	193	94	240	172	100	/	4-φ12*22	×	14
HA07T	G1/2"	435.5	218	206.5	94	240	172	100	360	4-φ12*22	×	17
HA10	G1/2"	460	258	191	94	240	172	100	/	4-φ12*22	✓	14
HA15	G1/2"	460	258	191	94	240	172	100	/	4-φ12*22	✓	14
HA30	G1/2"	447	258	178	94	240	172	100	/	4-φ12*22	✓	15
HA40	G1/2"	447	258	178	94	240	172	100	/	4-φ12*22	✓	15
HA60	G1/2"	447	258	178	94	240	172	100	/	4-φ12*22	✓	15
HA75	G1/2"	447	258	178	94	240	172	100	/	4-φ12*22	✓	15
HA100	G1/2"	447	258	178	94	240	172	100	/	4-φ12*22	✓	17



HD Series Gas Booster Pump

Air Driven Gas Booster of HD Series

HD series gas booster pump is a compressed air single-driven single-acting single-stage gas booster pump, which has the advantages of high safety, high intake pressure, large output flow, pressure maintenance energy consumption and some products are equipped with gas rapid cooling device.

- Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;
- The driving gas does not require lubrication and is completely isolated from the pressurized medium to ensure the cleanliness of the medium;
- The maximum output pressure can reach 830bar;
- Applicable to various media such as oxygen, nitrogen, methane, carbon dioxide, etc.
- The product is reliable, easy to maintain, strong, has a long sealing life, and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 1.0-2.0 M3/min.
- Drive pressure 1-8.3 bar (14.5-120.35psi) HD series is single drive piston (160mm).
- The medium temperature is not higher then 115°C(240°F) and order for extremely low temperature must be specified.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet special medium requirements.

Special Product Description:

About the medium: HD series can be used for a variety of media, Order code such as: HD32-CO2 (series code + boost ratio + boost medium) About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

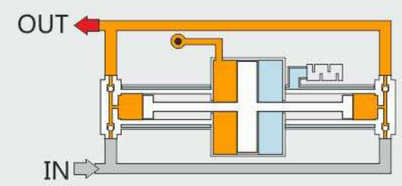
- HD Series gas booster Pumps are the suitable for situations where th ges source pressure is high and high pressure output and large flow are required.
- Air tightness test of various pressure components;
- Filling of special gases;
- Filling of diving breathing oxygen cylinders;
- High-pressure nitrogen foaming of coaxial cables;
- Calibration of high pressure and large diameter safety valves;
- The reaction device is filled with reaction medium;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
HD07	7:1	3.4	66.4	7Pa+Pi	NPT3/8"	NPT3/8"	392@Pi=7
HD10	10:1	6.5	83	10Pa+Pi	NPT3/8"	NPT3/8"	352@Pi=7
HD15	15:1	8.1	124.5	15Pa+Pi	NPT3/8"	NPT3/8"	289@Pi=10
HD32	32:1	18	265.6	32Pa+Pi	NPT1/4"	NPT1/4"	165@Pi=20
HD40	40:1	25	332	40Pa+Pi	NPT1/4"	NPT1/4"	273@Pi=40
HD60	60:1	32	498	60Pa+Pi	NPT1/4"	NPT1/4"	175@Pi=40
HD75	75:1	32	654.5	75Pa+Pi	NPT1/4"	NPT1/4"	136@Pi=60
HD100	100:1	40	830	100Pa+Pi	NPT1/4"	NPT1/4"	136@Pi=60

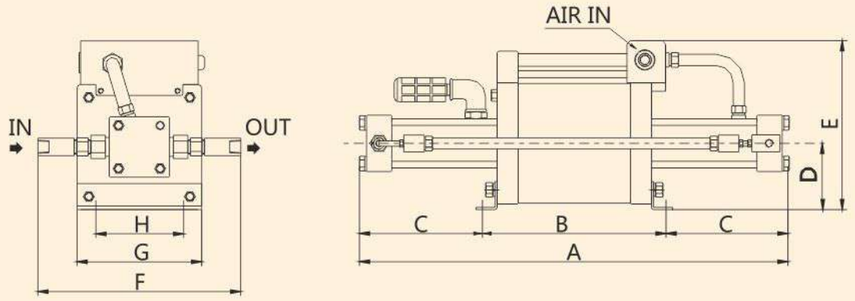
@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

Working Principle

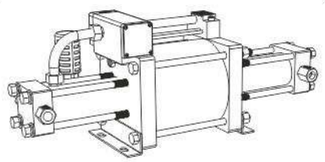


HD07, HD10, HD15

HD30, HD40, HD60, HD75, HD100



Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	H	Mounting Holes	Cooling Function	Weight /kg
HD07	G1/2"	636	258	189	94	240	330	172	100	4-φ12*22	×	23
HD10	G1/2"	636	258	189	94	240	330	172	100	4-φ12*22	×	18
HD15	G1/2"	636	258	189	94	240	310	172	100	4-φ12*22	×	21
HD30	G1/2"	612	258	177	94	240	300	172	100	4-φ12*22	✓	21
HD40	G1/2"	612	258	177	94	240	300	172	100	4-φ12*22	✓	21
HD60	G1/2"	612	258	177	94	240	300	172	100	4-φ12*22	✓	21
HD75	G1/2"	612	258	177	94	240	300	172	100	4-φ12*22	✓	23
HD100	G1/2"	612	258	177	94	240	300	172	100	4-φ12*22	✓	23



HB Series Gas Booster Pump

Air Driven Gas Booster of HB Series

HB series gas booster pump is a compressed air single-driven double-acting two-stage gas booster pump, which has the advantages of high safety, low intake pressure, high output pressure, no energy consumption for pressure maintenance, and some products are equipped with gas rapid cooling device.

- Single cylinder driven two-stage boost mode, wide output pressure range;
- Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;
- The driving gas does not require lubrication and is completely isolated from the pressurized medium to ensure the cleanliness of the medium;
- The maximum output pressure can reach 830bar;
- Applicable to various media such as nitrogen, carbon dioxide and pure oxygen;
- The product is reliable, easy to maintain, strong, has a long seal life and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 1.0-2.0 M_3/min.
- Drive pressure 1-8.3 bar (14.5-120.35psi) HB series is single drive piston (160mm).
- The medium temperature is not higher then 115°C(240°F) and order for extremely low temperature must be specified.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet special medium requirements.

Special Product Description:

About the medium: HB series can be used for a variety of media, Order code such as: HB7/32-CO2 (series code + boost ratio + boost medium) About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

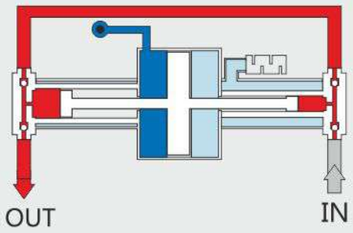
- HB Series gas booster Pumps are suitable for situations where the gas source pressure is high and high pressure output and large flow are require.
- Air tightness test of various pressure components;
- Filling of special gases;
- Filling of diving breathing oxygen cylinders;
- High-pressure nitrogen foaming of coaxial cables;
- Calibration of high pressure and large diameter safety valves;
- The reaction device is filled with reaction medium;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
HB7/15	15:1	3.4	131	15Pa+2Pi	NPT3/8"	NPT3/8"	215@Pi=7
HB7/32	32:1	3.4	259	32Pa+3Pi	NPT3/8"	NPT3/8"	118@Pi=7
HB15/32	32:1	7	263	32Pa+2Pi	NPT3/8"	NPT1/4"	156@Pi=10
HB15/40	40:1	7	346	40Pa+2Pi	NPT3/8"	NPT1/4"	125@Pi=10
HB15/60	60:1	7	526	60Pa+4Pi	NPT3/8"	NPT1/4"	92@Pi=10
HB32/60	60:1	30	558	60Pa+2Pi	NPT1/4"	NPT1/4"	245@Pi=40
HB32/100	100:1	30	920	100Pa+3Pi	NPT1/4"	NPT1/4"	192@Pi=40

@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

Working Principle



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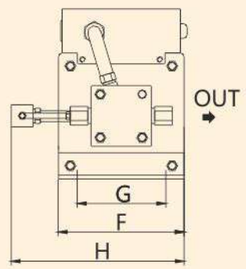
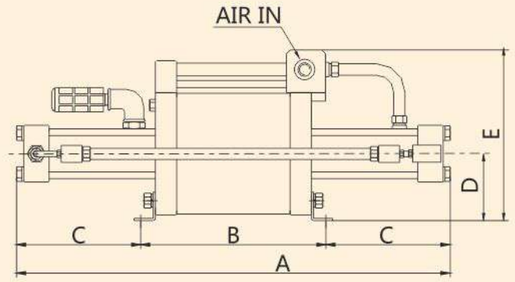
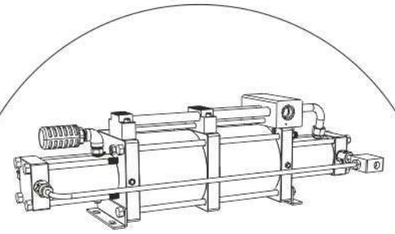
HB7/15, HB7/32, HB15/32, HB15/40, HB15/60,





Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	H	Mounting Holes	Cooling Function	Weight /kg
HB7/15	G1/2"	626	258	184	94	240	172	100	240	4-ϕ12*22	✓	19
HB7/32	G1/2"	626	258	184	94	240	172	100	240	4-ϕ12*22	✓	19
HB15/32	G1/2"	626	258	184	94	240	172	100	240	4-ϕ12*22	✓	20
HB15/40	G1/2"	626	258	184	94	240	172	100	240	4-ϕ12*22	✓	20
HB15/60	G1/2"	626	258	184	94	240	172	100	240	4-ϕ12*22	✓	20
HB32/60	G1/2"	612	258	177	94	240	172	100	240	4-ϕ12*22	✓	20
HB32/100	G1/2"	612	258	177	94	240	172	100	240	4-ϕ12*22	✓	21



3HA/2HD Series Gas Booster Pump

Air Driven Gas Booster of 2HD Series

2HD series gas booster pump is a compressed air double-driven double-acting single-stage gas booster pump, Compared with other series. it has the advantages of high intake pressure, large output and some product are equipped with gas rapid cooling zone device.

Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;

The driving gas does not require lubrication and is completely separated from the pressurized medium to ensure the cleanliness of the medium;

The maximum output pressure can reach 1660bar, the flow rate is greater than that of GBD series at the same pressure ratio;

Applicable to various media such as nitrogen, carbon dioxide and pure oxygen;

The product is reliable, easy to maintain, strong, has a long seal life and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 1.6-2.5 M3/min:
- Drive pressure 1-8.3 Bar (14.5-120.35psi) 2HD series is single drive piston (160mm).
- The medium temperature is not higher then 115°C(240°F) and order for extremely low temperature must be specified.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet special medium requirements.
- 2HD series standard products are nitrogen, order code such as: 2HD32 (series + boost ratio)

Special Product Description:

About the medium: 2HD series can be used for a variety of media, Order code such as: 2HD32-CO2 (series code + boost ratio + boost medium)
About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

- 2HD Series gas booster Pumps are suitable for situations where the gas source pressure is high and high pressure output and large flow are require.
- Mainly used for air tightness test of various large pressure components;
- Suitable For the transportation and filling of various high-pressure gases;
- Suitable for boosting and stabilizing the pressure of gas-liquid mixied CO2;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

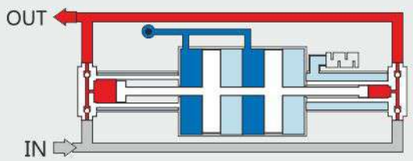
Series	Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
3HA	3HA225	225:1	20	1575	225Pa	HF4	HF4	117@Pi=100
	3HA300	300:1	40	2690	300Pa	HF4	HF4	87@Pi=100
2HD	2HD08	8:1	3.4	70	8Pa+Pi	NPT3/8"	NPT3/8"	774@Pi=7
	2HD15	15:1	3.4	128	15Pa+Pi	NPT3/8"	NPT3/8"	614@Pi=7
	2HD32	32:1	7.5	273	32Pa+Pi	NPT3/8"	NPT3/8"	530@Pi=10
	2HD65	65:1	25	565	65Pa+Pi	NPT3/8"	NPT3/8"	327@Pi=25
	2HD82	82:1	40	721	82Pa+Pi	NPT1/4"	NPT1/4"	385@Pi=40
	2HD150	150:1	60	1305	150Pa+Pi	NPT1/4"	HF4	297@Pi=100
	2HD200	200:1	80	1740	200Pa+Pi	NPT1/4"	HF4	187@Pi=100

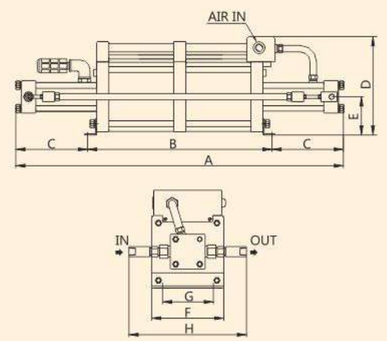
@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

2HD50 - 2HD65 - 2HD82
2HD150 - 2HD200

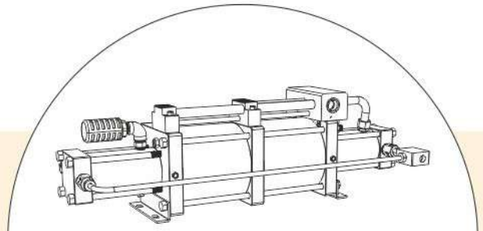
2HD15 - 2HD32

Working Principle





Series	Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	H	Mounting Holes	Cooling Function	Weight /kg
3HA	3HA225	3/4"NPT	738	554	-	231	-	-	76	×	4-ϕ10*22	✓	22
	3HA300	3/4"NPT	852	554	180	231	-	-	76	×	4-ϕ10*22	✓	20
2HD	2HD08	G3/4"	830	448	196	240	94	172	100	330	4-ϕ12*22	×	32
	2HD15	G3/4"	840	448	196	240	94	172	100	×	4-ϕ12*22	×	32
	2HD32	G3/4"	840	448	196	240	94	172	100	310	4-ϕ12*22	✓	29
	2HD65	G3/4"	808	448	180	240	94	172	100	300	4-ϕ12*22	✓	30
	2HD82	G3/4"	810	448	193	240	94	172	100	300	4-ϕ12*22	✓	30
	2HD150	G3/4"	830	448	193	240	94	172	100	×	4-ϕ12*22	✓	30
	2HD200	G3/4"	808	448	180	240	94	172	100	×	4-ϕ12*22	✓	32



2HB Series Gas Booster Pump

Air Driven Gas Booster of 2HB Series

2HB series gas booster pump is a compressed air double-driven double-acting two-stage gas booster pump, which has the advantages of high safety, low intake pressure, high output pressure and guaranteed flow rate. Some product are equipped with gas rapid cooling device.

- Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;
- The driving gas does not require lubrication and is completely separated from the pressurized medium to ensure the cleanliness of the medium;
- The maximum output pressure can reach 1660bar;
- Applicable to various media such as nitrogen, helium, carbon dioxide, methane, etc.
- The product is reliable, easy to maintain, strong, has a long seal life and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 1.6-2.5 M3/min:
- Drive pressure 1-8.3 bar (14.5-120.35psi) 2HB series with dual drive piston (160mm)
- The medium temperature is not higher then 115°C(240°F) and order for extremely low temperature must be specified.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet special medium requirements.
- The standrad products of 2 HB series are nitrogen boosted orderring code such as: 2HB15/32 (series code + sirst stage boost ratio / second stage boost ratio)

Special Product Description:

About the medium: 2HB series can be used for a variety of media,Order code such as: 2HB15/32-CO2
(series code + first-stage boost ratio/second-stage boost ratio + boost medium)
About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

- 2HB Series gas booster Pumps are suitable for working condition where high output pressure and a certain flow rate are require when the initial pressure is low.
- Applied in high pressure nitrogen assisted injection molding;
- Applied in CO2 fire extinguishing, refrigeration, foaming, high-pressure cleaning and other fields;
- Applied to hydrogen filling of hydrogen energy vehicles;
- Applied to cable foam coating;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

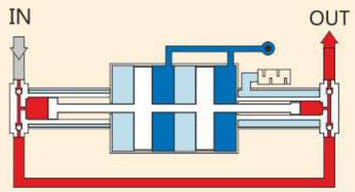
Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
2HB7/15	15:1	3.4	131	15Pa+2Pi	NPT3/8"	NPT3/8"	390@Pi=10
2HB15/32	32:1	10	286	32Pa+2Pi	NPT3/8"	NPT3/8"	286@Pi=10
2HB15/65	65:1	10	580	65Pa+4Pi	NPT3/8"	NPT3/8"	165@Pi=10
2HB32/65	65:1	30	600	65Pa+2Pi	NPT3/8"	NPT3/8"	455@Pi=40
2HB80/150	150:1	45	1335	150Pa+2Pi	NPT1/4"	HF4	146@Pi=40
2HB80/200	200:1	60	1840	200Pa+3Pi	NPT1/4"	HF4	70@Pi=40

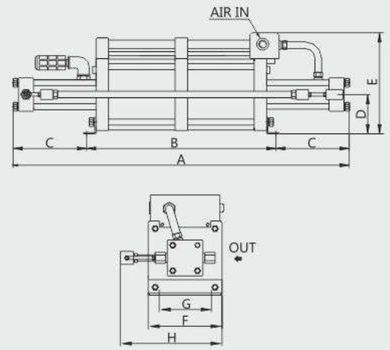
@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7 bar.

2HB15/32 - 2HB15/65 - 2HB32/65
2HB80/150 - 2HB50/200

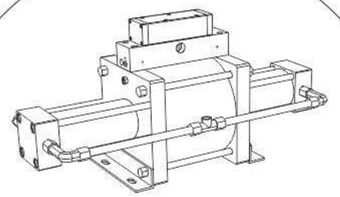
2HB7/15

Working Principle





Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	H	Mounting Holes	Cooling Function	Weight /kg
2HB7/15	G3/4"	845	448	198.5	94	240	172	100	240	4-ϕ12*22	×	27
2HB15/32	G3/4"	845	448	188.5	94	240	172	100	240	4-ϕ12*22	✓	33
2HB15/65	G3/4"	845	448	188.5	94	240	172	100	240	4-ϕ12*22	✓	27
2HB32/65	G3/4"	845	448	188.5	94	240	172	100	240	4-ϕ12*22	✓	29
2HB80/150	G3/4"	845	448	188.5	94	240	172	100	240	4-ϕ12*22	✓	30
2HB80/200	G3/4"	845	448	188.5	94	240	172	100	240	4-ϕ12*22	✓	30



10HA/10HD Series Gas Booster Pump

Air Driven Gas Booster of 10HD Series

10HD series gas booster pump is a compressed air single-driven double-acting single-stage gas booster pump, which has the advantages of high safety, high output pressure, high flow pressure maintenance without energy consumption and some product are equipped with gas rapid cooling device.

Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;

The driving gas does not require lubrication and is completely separated from the pressurized medium to ensure the cleanliness of the medium;

Applicable to various media such as oxygen, nitrogen, methane, carbon dioxide, etc.

The product is reliable, easy to maintain, strong, has a long seal life and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 3-5 M3/min:
- Drive pressure 1-8.3 bar (14.5-120.35psi) 10HD series is single drive piston (250mm):
- The medium temperature is not higher then 115°C(240°F) and the extremely low temperature must be specified when ordering:
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet the requirements of special media:

Special Product Description:

About the medium: 10HD series can be used for a variety of media, Order code such as: 10HD30-CO2 (series code + boost ratio + boost medium)
About the interface: If you need a special medium interface, please indicate it when ordering.

Application Scenario:

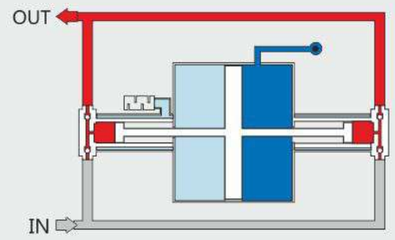
- 10HD Series gas booster Pumps are suitable for working condition where high output pressure and a certain flow rate are require when the initial pressure is low.
- Applied in high pressure nitrogen assisted injection molding;
- Applied in CO2 fire extinguishing, refrigeration, foaming, high-pressure cleaning and other fields;
- Applied to hydrogen filling of hydrogen energy vehicles;
- Applied to cable foam coating;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

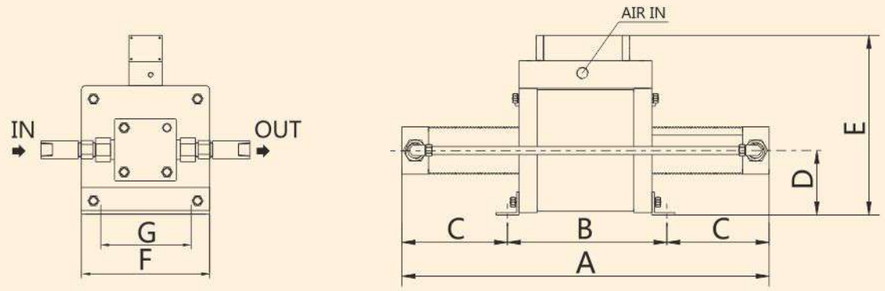
Series	Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
10HA	10HA01T	1:1	1	16	1Pa+Pi	NPT3/4"	NPT3/4"	4588@Pi=7
	10HA02T	2:4	3.4	23	2.4Pa+Pi	NPT3/4"	NPT3/4"	2714@Pi=7
10HD	10HD06	6:1	7	56.8	6Pa+Pi	NPT1/2"	NPT1/2"	855@Pi=7
	10HD15	15:1	15	140	15Pa+Pi	NPT1/2"	NPT1/2"	730@Pi=10
	10HD30	30:1	30	279	30Pa+Pi	NPT3/8"	NPT3/8"	530@Pi=30
	10HD60	60:1	40	538	60Pa+Pi	NPT3/8"	NPT1/4"	427@Pi=25
	10HD150	150:1	60	1305	150Pa+Pi	NPT1/4"	HF4	198@Pi=80

@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

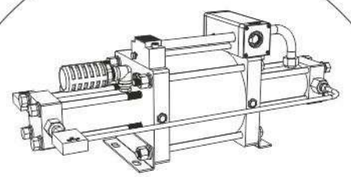
WORKING PRINCIPAL



10HD60



Series	Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	Mounting Holes	Cooling Function	Weight /kg
10HA	10HA01T	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	×	70
	10HA02T	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	×	65
10HD	10HD06	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	×	65
	10HD15	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	×	60
	10HD30	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	✓	45
	10HD60	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	✓	60
	10HD150	PT3/4"	860	350	255	140	390	270	150	4-ϕ16*32	✓	60



10HB Series Gas Booster Pump

Air Driven Gas Booster of 10HB Series

10HB series gas booster pump is a compressed air single-driven double-acting two-stage gas booster pump, which has the advantages of high safety, no medium pollution, high output pressure, no energy consumption for pressure maintenance and some product are equipped with gas rapid cooling device.

- Single cylinder driven two-stage boost mode, wide output pressure range;
- Gas drive prevents the medium from generating heat, sparks and flames during transmission, and the pressurization is safe;
- The driving gas does not require lubrication and is completely separated from the pressurized medium to ensure the cleanliness of the medium;
- The maximum output pressure can reach 1660bar;
- Applicable to various media such as nitrogen, carbon dioxide and pure oxygen;
- The product is reliable, easy to maintain, strong, has a long seal life and can be started and stopped continuously.

Main features:

- Based on static pressure, when the driving air pressure is 7 bar, the air consumption is 3-5 M3/min:
- Drive pressure 1-8.3 bar (14.5-120.35psi) 10HB series is single drive piston (250mm)
- The medium temperature is not higher than115°C(240°F) and the extremely low temperature must be specified when ordering.
- The high-pressure end material can be customized to 17-4PH 15-5PH, 44 OC, nickel-based alloy, Hastelloy and other materials to meet the requirements of special media.
- The standrad products of 10HB series are nitrogen boosted. The order code is as follows : 10HB7/15 (series code + first - stage boost ration / second - stage boost ratio)

Special Product Description:

About the medium: The 10HB series can be used for a variety of media, Order code such as: 10HB15/30-CO2
(series code + first-stage boost ratio / second-stage boost ratio + boost medium)
About the interface: If a special medium interface is required, please indicate it when ordering.

Application Scenario:

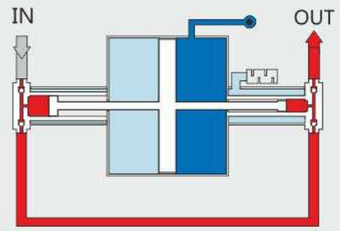
- 10HB Series gas booster Pumps are suitable for the output of large flow and high pressure and the occasions with low initial pressure of the medium.
- Recovery and filling of special gases;
- Hydrogen energy mobile hydrogenation unit power source; Applied to hydrogen filling of hydrogen energy vehicles;
- Gas tightness test of christmas tree or wellhead safety valve in the petroleum industry;

TECHNICAL PARAMETERS (Pa=Driving Air Pressure Pi=Input Air Pressure Po=Output Air Pressure)

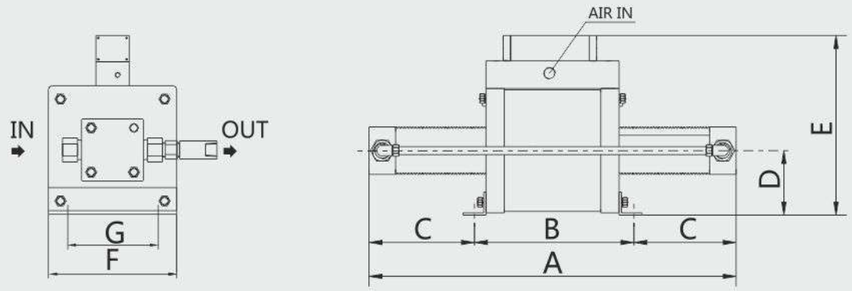
Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	Max flow rate standard liters per minute (NL/Min)
10HB7/15	15:1	3.4	131	15Pa+2Pi	NPT3/8"	NPT3/8"	610@Pi=10
10HB15/30	30:1	15	279	30Pa+2Pi	NPT3/8"	NPT3/8"	495@Pi=10
10HB15/60	60:1	15	558	60Pa+4Pi	NPT3/8"	NPT3/8"	375@Pi=10
10HB30/60	60:1	30	558	60Pa+2Pi	NPT3/8"	NPT3/8"	685@Pi=10
10HB80/150	150:1	30	1305	150Pa+2Pi	NPT3/8"	HF4	212@Pi=10
10HB80/200	200:1	30	1750	200Pa+3Pi	NPT3/8"	HF4	170@Pi=10

@ Represents Under Certain Conditions, For Example: 100@pi=7, Which Means That The Flow Rate Is 100nl/min Under The Input Pressure Of 7bar.

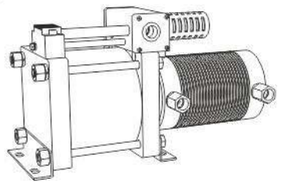
WORKING PRINCIPAL



10HB30/60



Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	Mounting Holes	Cooling Function	Weight /kg
10HB7/15	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	×	65
10HB15/30	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	✓	31
10HB15/60	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	✓	60
10HB30/60	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	✓	58
10HB80/150	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	✓	55
10HB80/200	PT3/4"	862	350	256	140	390	270	150	4-ϕ16*32	✓	55



ZB Series Refrigerant Booster Pump

Pumps For Befrigerant (Recovery or Recharge)

ZB series refrigerant booster pump is a compressed air driven single-acting refrigerant booster pump with the advantages of high safety, no medium pollution, low operating cost, portable product, continuous start and stop, easy maintenance, etc.

- Light weight, total weight is 17-50KG, easy to carry and convenient to operate.
- The driving gas does not require lubrication and is completely separated from the pressurized medium to ensure the cleanliness of the medium;
- Applicable to various media such as R22, R134A, R407C, R 410A, etc., and can be used for liquid and gaseous refrigerants;
- Gas drive ensures that there is no heat, sparks or flames generated during liquid transmission and safe pressurization:

Main features:

- Considering the particularity of application scenarios, the ZB series refrigerant booster pump is suitable for all-weather and continuous use.
- The application of various media places higher demands on the versatility and stability of its parts and seals.
- The extended guide design makes the refrigerant booster pump more stable.
- ZB series standard products are not equipped with pipes, order code such as: ZB05 (series code+boost ratio)

Special Piping Method:

ZB series can provide T-type piping, and form 180 piping with check valve. Order code: ZB05-T (series code + pressure ratio + direction code) T represents parallel piping, D represents single side piping, and F represents vertical piping;

Special Product Instructions:

Regarding the medium: When ordering the ZB series refrigerant booster pump, the medium must be specified. Special models will have suffixes such as ZB05-R22, ZB07-C02. About the interface; If you need a special interface, please indicate it when ordering.

Application Scenario:

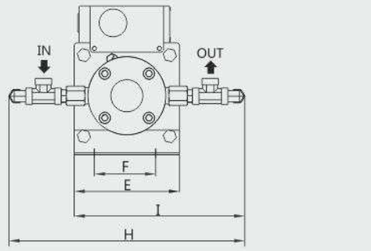
Commonly used for pressurization, transportation and recovery of refrigerants (coolants);

Applicable media table

Refrigerant Type	Chemical Name	Critical/MPa Pressure	Critical/℃ Temperature	Boiling point /℃	Refrigerant Type	Chemical Name	Critical/MPa Pressure	Critical/℃ Temperature	Boiling point /℃
*R12	Dichlorodifluoromethane	4.14	111.97	-29.8	R410a	R410a	4.95	72.5	51.6
*R22	Dichlorodifluoromethane	4.91	96.15	-40.8	R407C	Difluoromethane	4.619	86.74	36.1-43.4
R32	Difluoromethane	5.808	78.52	-51.7	R290	Propane	4.25	96.67	42.2
*R134a	Tetrafluoroethane	4.07	101.1	-26.5	* indicates special media, please indicate when ordering;				

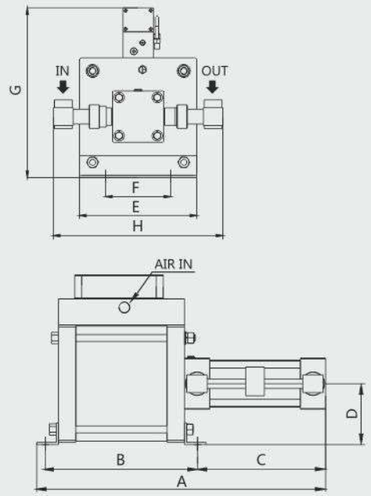
Technical Parameters

Model	Pressure Ratio	Minimum gas inlet pressure Pi (bar)	Maximum allowable outlet pressure Po (bar)	Gas outlet pressure calculation formula Po=	Gas Inlet In	Gas Outlet Out	1g/CM standard state flow rate at density g/s
ZB05	4:1	0.1	33.2	4Pa+Pi	PT1/2"	PT1/2"	400
ZB04T	4:1	0.1	33.2	4Pa+Pi	PT1/2"	PT1/2"	400
ZB04D	4:1	0.1	33.2	4Pa+Pi	PT1/2"	PT1/2"	400
ZB04F	4:1	0.1	33.2	4Pa+Pi	PT1/2"	PT1/2"	400
ZB07	7:1	3.4	56	7Pa+Pi	PT1/2"	PT1/2"	280
ZB07T	7:1	3.4	56	7Pa+Pi	PT3/8"	PT3/8"	280
4ZB06	6:1	3.4	48	6Pa+Pi	PT1"	PT1"	1600
4ZB10	10:1	3.4	83	10Pa+Pi	PT3/4"	PT3/4"	900



ZB05, ZB07

4ZB06, 4ZB10



Model	Actuating air connection (AIR IN)	Installation Size/(mm) A	B	C	D	E	F	G	H	I	Mounting Holes	Weight /kg
ZB05	G1/2"	433	218	204	94	172	100	240	/	/	4-ϕ12*22	17
ZB05T	G1/2"	433	218	204	94	172	100	240	360	266	4-ϕ12*22	18
ZB05D	G1/2"	433	218	204	94	172	100	240	/	266	4-ϕ12*22	18
ZB05F	G1/2"	433	218	204	94	172	100	240	/	/	4-ϕ12*22	18
ZB07	G1/2"	433	218	204	94	172	100	240	/	/	4-ϕ12*22	18
ZB07T	G1/2"	433	218	204	94	172	100	240	360	/	4-ϕ12*22	18
4ZB06	PT3/4"	665	350	295	140	150	270	390	360	/	4-ϕ16*32	51
4ZB10	PT3/4"	665	350	295	140	150	270	390	360	/	4-ϕ16*32	50

Guideline:

SY/T5323 Throttling and well killing systems
API Spec 16A Specification for drilling access equipment
API Spec 16C Chock and kill system specification
SY/T5127 Wellhead equipment and Christmas tree specifications
API Spec 6A Wellhead and Christmas tree equipment specifications
SY/T5053.1 Surface blowout preventer and control device blowout preventer

Portable test equipment

The equipment has a compact structure, reliable quality, and is easy to carry. It is driven by compressed gas, safe and explosion-proof, and can be used in explosion-proof occasions.

Portable water pressure testing equipment	Portable water pressure test equipment with mechanical recorder	Portable gas booster equipment
		

TECHNICAL PARAMETERS:

Model	Test Medium	Pressure Level	Pressure Control Accuracy	Drive Pressure (psi)	Control Method	Pressurization Method	Optional
Portable Water Pressure Test Equipment	Water	10,000psi, 20,000psi 40,000psi, 85,000psi	±1%FS	72.5~145	Manual	/	Mechanical disc recorder, high pressure stainless steel adapter, high pressure hose
Portable water pressure test equipment with (mechanical recorder)	Water	10,000psi, 20,000psi 40,000psi, 85,000psi	±1%FS	72.5~145	Manual	/	High-pressure stainless steel conversion joint, high-pressure hose
Portable gas booster equipment	Gas	6,000psi, 10,000psi 20,000psi, 39,000psi	±1%FS	72.5~145	/	Single Pump Boost	/

Prestigious Costumers..