



Benefits:

- Saving up to 70% air consumption
- Maintenance free – no moving parts
- Simple and easy to operate

**Air Amplifier
Series ZH-X185**



Air Amplifier

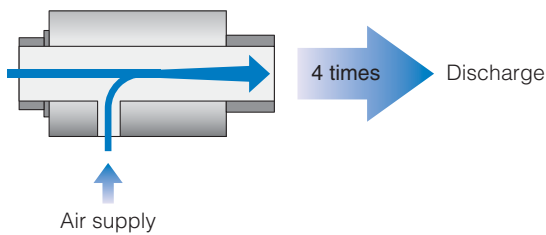
■ What is an Air Amplifier?

It is a simple, light, cost effective tool that takes energy from a small volume of compressed air to produce high velocity, high volume, low pressure output airflow.

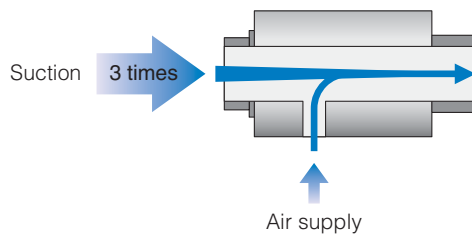
■ How does it work?

In simple terms: it multiplies the flow. For one unit of air you feed into the device, it creates output flow 4 times greater.

Blowing is possible at a flow rate quadruple that of the supplied air.



Suctioning is possible at a flow rate triple the supplied air.



The Air Amplifier uses the Coanda effect, the phenomena in which a jet flow attaches itself to a nearby surface and remains attached when the surfaces curves away from the initial jet direction. Using a small amount of compressed air as their power source, Air Amplifiers pull in large volumes of surrounding air to produce high volume, high velocity outlet flow.

x4



■ Features

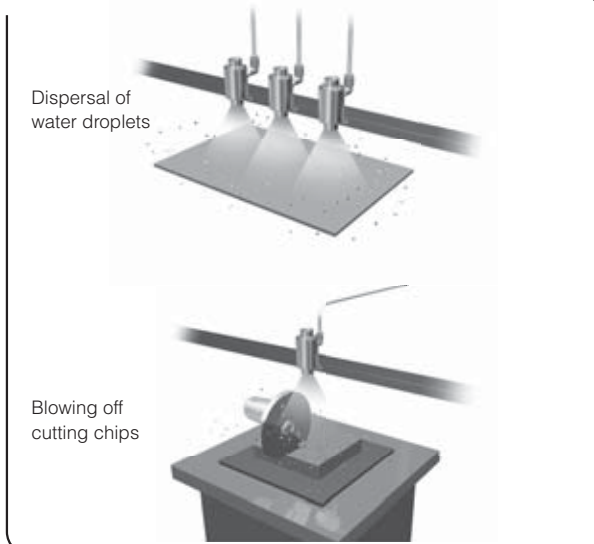
- Energy efficiency – 1:4
- Instant on-off control
- Air driven – no electrical supply required
- It is a flow amplifier not a pressure booster
- It can replace a fan/s

■ Benefits

- Air consumption saving – reduces air consumption for air blows by 70%
- Maintenance free – no moving parts
- Simple and easy to operate
- Quiet
- Safe

Application examples

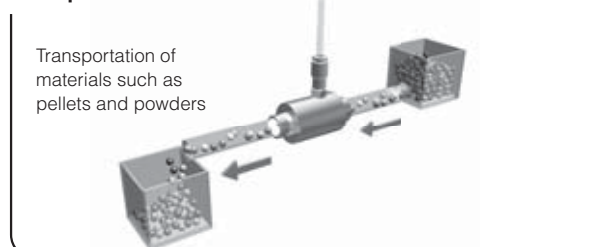
Blow



Vacuum



Transportation



Air Amplifier – technical details at a glance



ZH 20 - B - X185

Passage diameter

10	13 mm
20	21.6 mm
30	30 mm
40	42 mm

Bracket

—	No bracket
B	With bracket

Warning

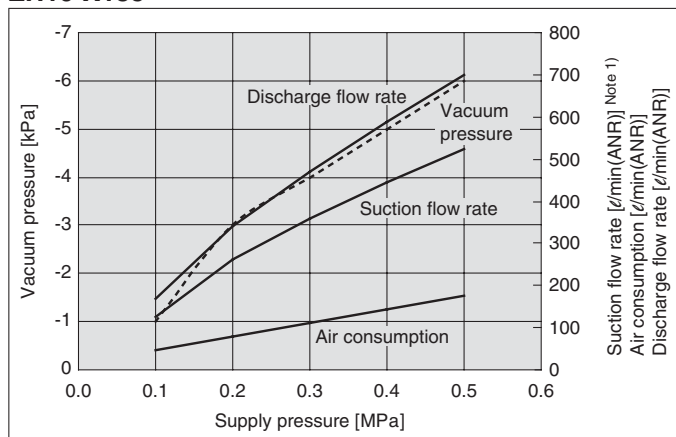
- Objects that have been sucked in may be discharged with the exhaust air, so make sure the exhaust port is not facing towards people or equipment.
 - Do not use in an environment containing corrosive gases, chemicals, organic solvents, sea water or steam, or where it will come into contact with these fluids.
- For safety precautions and common precautions for vacuum equipment, refer to "SMC Product Handling Precautions" (M-E03-3B).

Specifications

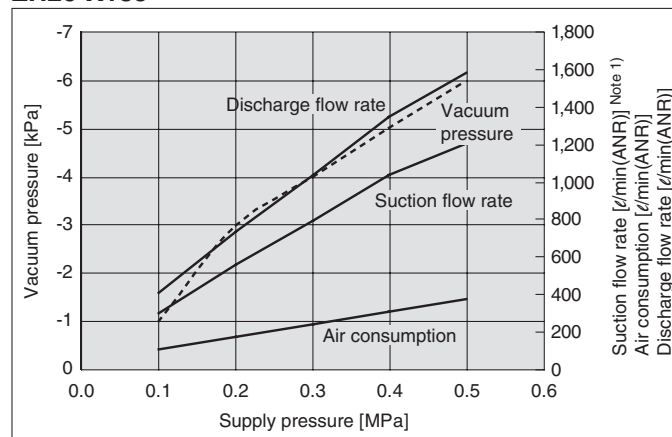
Model	ZH10-X185	ZH20-X185	ZH30-X185	ZH40-X185
Body material	Aluminium alloy			
Seal material	NBR			
Passage diameter	ø13	ø21.6	ø30	ø42
Fluid used	Air			
Supply pressure range	0 ~ 0.7MPa			
Weight [g]	110	430	970	2000
Bracket assembly	ZH-BK1-10-A	ZH-BK1-20-A	ZH-BK1-30-A	ZH-BK1-40-A

Flow rate characteristics

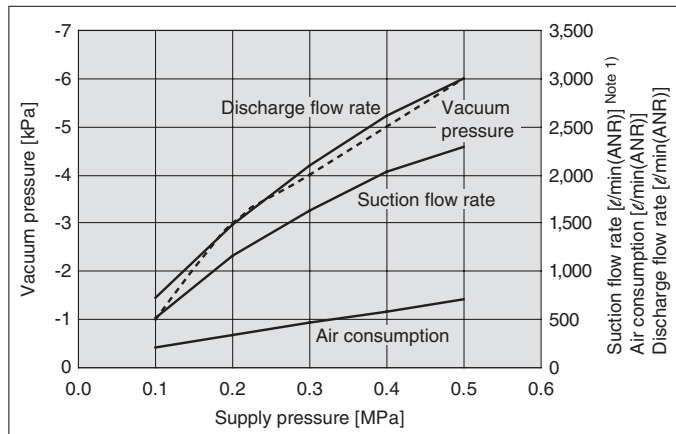
ZH10-X185



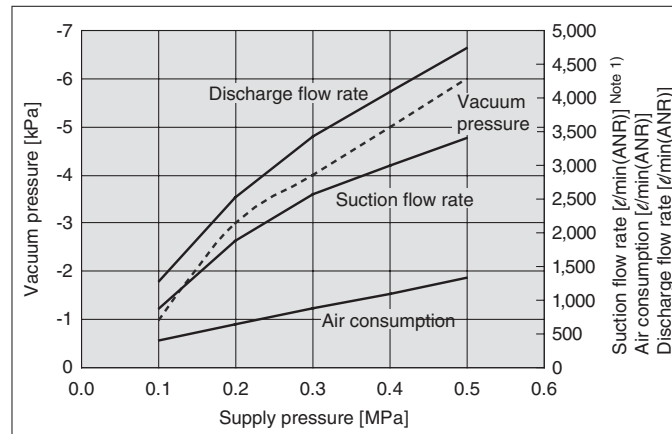
ZH20-X185



ZH30-X185



ZH40-X185



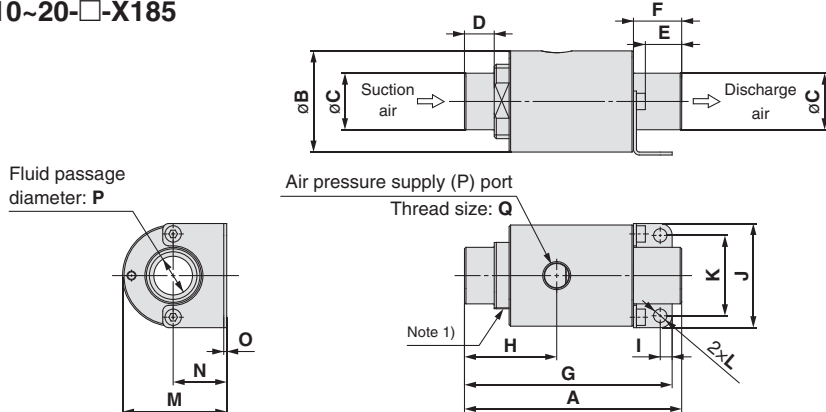
Note 1) Suction flow rate is a theoretical value.

Note 2) The characteristics above show the values when the discharge pressure is atmospheric pressure.

Note 3) If the filter is installed to collect dust in the outlet side piping, make sure it does not cause back pressure.

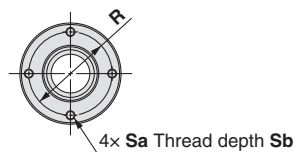
External Dimensions Drawing

ZH10~20-□-X185



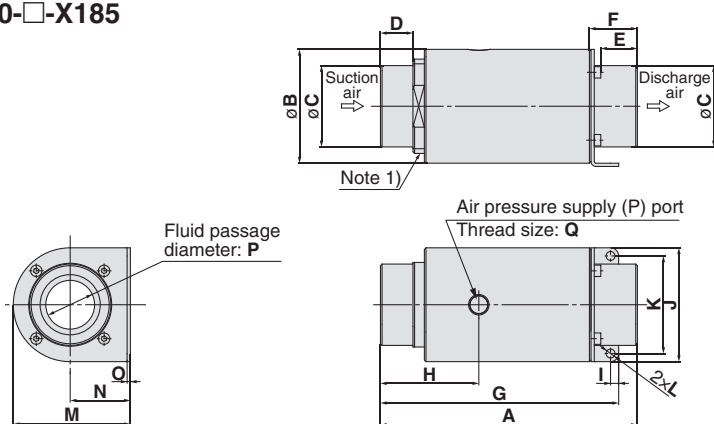
Note 1) Do not use this threaded part for mounting

Without bracket



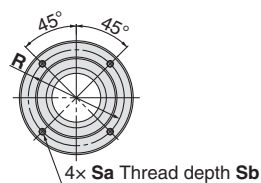
Model	A	øB	øC	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Sa	Sb
ZH10-□-X185	73	34	19	10	13.2	16.2	69.8	31	4	35	27	4.5	35	18	1	13	Rc1/8	28	M3x0.5	5
ZH20-□-X185	119.5	55	32	15	19.5	23.5	111	48	4	56	48	4.5	56.5	29	1	21.6	Rc1/4	44	M4x0.7	8

ZH30~40-□-X185



Note 1) Do not use this threaded part for mounting

Without bracket



Model	A	øB	øC	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Sa	Sb
ZH30-□-X185	158	70	50	20	24.5	28.5	146.5	60.5	5	70	60	5.5	72	37	2	30	Rc1/4	59	M4x0.7	10
ZH40-□-X185	203	90	64	25	27.2	33.5	196.8	74.5	6	90	78	6.5	92	47	2.3	42	Rc3/8	76	M4x0.7	10

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