

**Benefits:**

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

Air Amplifier Series ZH-X185



Air Amplifier

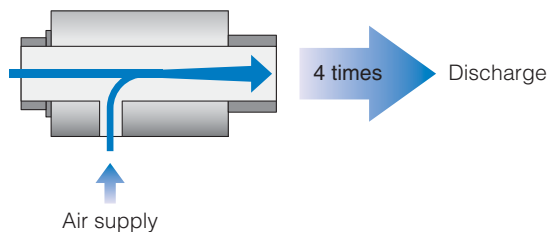
■ What is an Air Amplifier?

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.

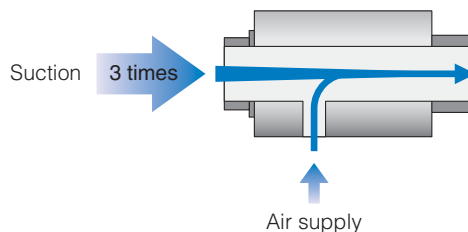
■ How does it work?

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

Dispersion of water droplets

Blowing off cutting chips

Vacuum

Extraction of solder fumes

Transportation

Transportation of materials such as pellets and powders

Air Amplifier – technical details at a glance

RoHS

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

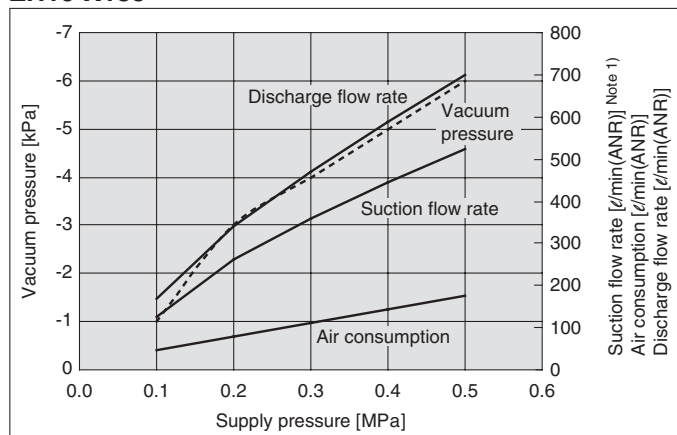
- Objects that have been sucked in may be discharged with the exhaust air, so make sure the exhaust port is not facing towards people or equipment.
 - Do not use in an environment containing corrosive gases, chemicals, organic solvents, sea water or steam, or where it will come into contact with these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

Specifications

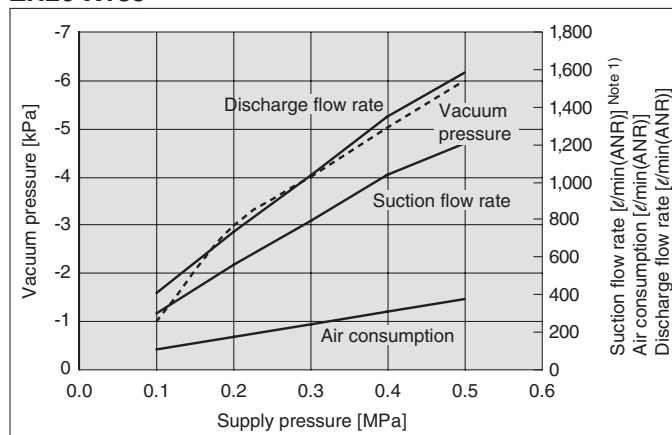
Model	ZH10-X185	ZH20-X185	ZH30-X185	ZH40-X185
Body material	Aluminium alloy			
Seal material	NBR			
Passage diameter	ø13	ø21.6	ø30	ø42
Fluid used	Air			
Supply pressure range	0 ~ 0.7MPa			
Weight [g]	110	430	970	2000
Bracket assembly	ZH-BK1-10-A	ZH-BK1-20-A	ZH-BK1-30-A	ZH-BK1-40-A

Flow rate characteristics

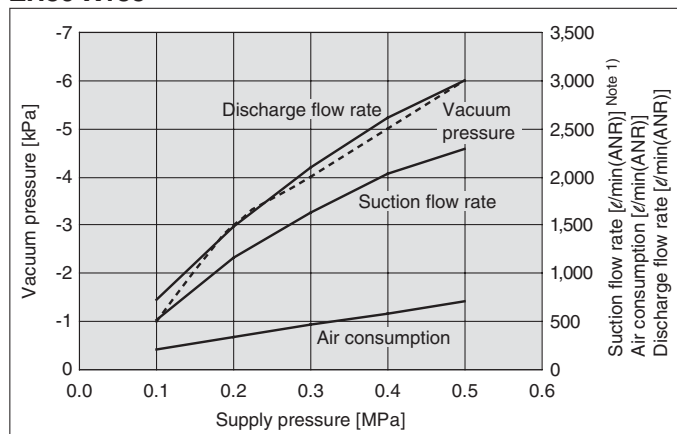
ZH10-X185



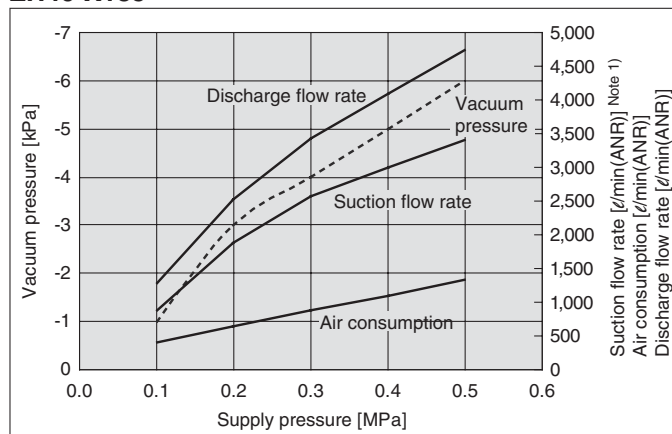
ZH20-X185



ZH30-X185



ZH40-X185



Note 1) Suction flow rate is a theoretical value.

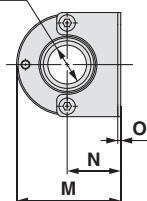
Note 2) The characteristics above show the values when the discharge pressure is atmospheric pressure.

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

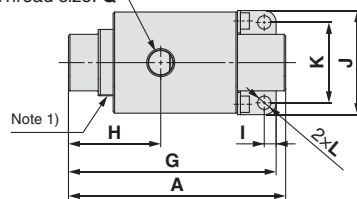
ZH10~20-□-X185

Fluid passage diameter: P



Air pressure supply (P) port

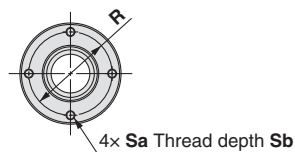
Thread size: Q



Note 1)

Note 1) Do not use this threaded part for mounting

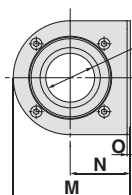
Without bracket



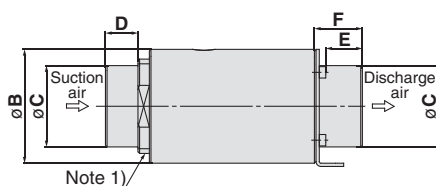
Model	A	øB	øC	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Sa	Sb
ZH10-□-X185	73	34	19	10	13.2	16.2	69.8	31	4	35	27	4.5	35	18	1	13	Rc1/8	28	M3x0.5	5
ZH20-□-X185	119.5	55	32	15	19.5	23.5	111	48		56	48	4.5	56.5	29		21.6	Rc1/4	44	M4x0.7	8

[mm]

ZH30~40-□-X185



Fluid passage diameter: P



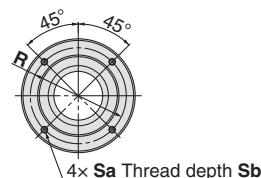
Note 1)

Air pressure supply (P) port

Thread size: Q

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		

[mm]

We love energy-saving products that save money and help the environment!



SMC CORPORATION (Europe)

Austria ☎ +43 (0)2262622800
 Belgium ☎ +32 (0)33551464
 Bulgaria ☎ +359 (0)2807670
 Croatia ☎ +385 (0)13707288
 Czech Republic ☎ +420 541424611
 Denmark ☎ +45 70252900
 Estonia ☎ +372 6510370
 Finland ☎ +358 207513513
 France ☎ +33 (0)164761000
 Germany ☎ +49 (0)61034020
 Greece ☎ +30 210 2717265
 Hungary ☎ +36 23511390
 Ireland ☎ +353 (0)14039000
 Italy ☎ +39 0292711
 Latvia ☎ +371 67817700

www.smc.at
 www.smc-pneumatics.be
 www.smc.bg
 www.smc.hr
 www.smc.cz
 www.smodk.com
 www.smc-pneumatics.ee
 www.smc.fi
 www.smc-france.fr
 www.smc-pneumatik.de
 www.smc-hellas.gr
 www.smc.hu
 www.smc-pneumatics.ie
 www.smc-italia.it
 www.smc-lv.lv

office@smc.at
 info@smc-pneumatics.be
 office@smc.bg
 office@smc.hr
 office@smc.cz
 smc@smcmodk.com
 smc@smc-pneumatics.ee
 smc@smc.fi
 promotion@smc-france.fr
 info@smc-pneumatik.de
 sales@smc-hellas.gr
 office@smc.hu
 sales@smc-pneumatics.ie
 mailbox@smc-italia.it
 info@smc-lv.lv

Lithuania ☎ +370 5 2308118
 Netherlands ☎ +31 (0)205318888
 Norway ☎ +47 67129020
 Poland ☎ +48 (0)222119616
 Portugal ☎ +351 226166570
 Romania ☎ +40 213205111
 Russia ☎ +7 8127185445
 Slovakia ☎ +421 (0)413213212
 Slovenia ☎ +386 (0)73885412
 Spain ☎ +34 902184100
 Sweden ☎ +46 (0)86031200
 Switzerland ☎ +41 (0)523963131
 Turkey ☎ +90 212 489 0 440
 UK ☎ +44 (0)845 121 5122

www.smc.lt
 www.smc-pneumatics.nl
 www.smc-norge.no
 www.smc.pl
 www.smc.eu
 www.smcromania.ro
 www.smc-pneumatik.ru
 www.smc.sk
 www.smc.si
 www.smc.eu
 www.smc.nu
 www.smc.ch
 www.smc-pneumatik.com.tr
 www.smc-pneumatics.co.uk

info@smc.lt
 info@smc-pneumatics.nl
 post@smc-norge.no
 office@smc.pl
 post@smc.eu
 smcromania@smcromania.ro
 info@smc-pneumatik.ru
 office@smc.sk
 office@smc.si
 post@smc.eu
 post@smc.nu
 info@smc.ch
 info@smc-pneumatik.com.tr
 sales@smc-pneumatics.co.uk

LEAF-AIR-01A-UK