BLUEGER

A trusted brand for ventilating fan

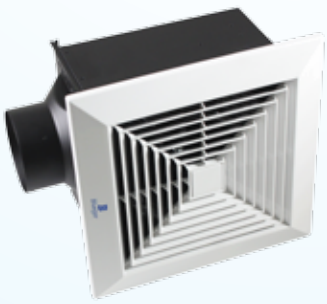
CE CB SASO

WARRANTY

2 YEARS

CATALOGUE

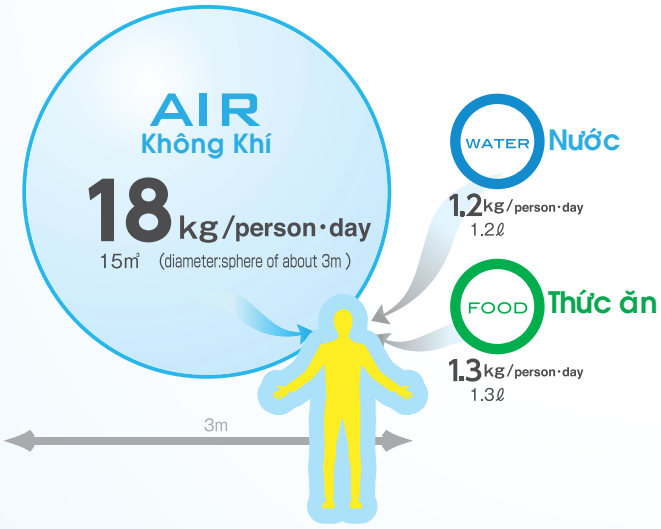
Household Ventilating Fan



http://blueger.vn

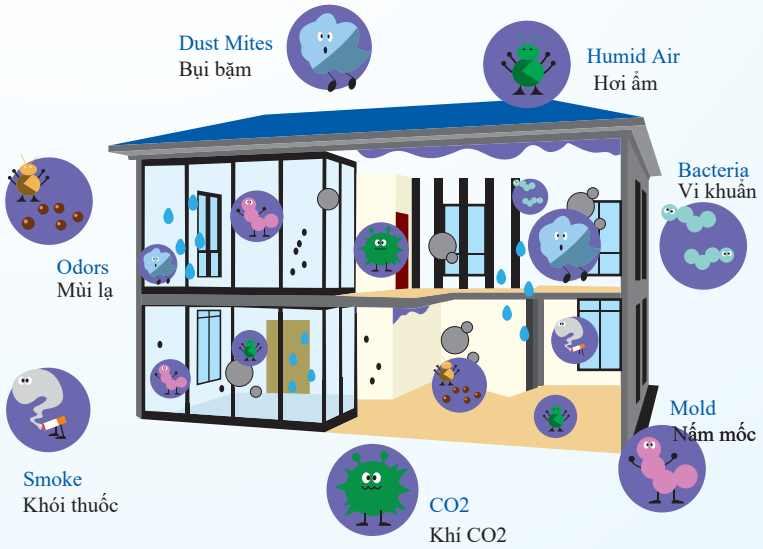
INDOOR AIR QUALITY -Chất lượng không khí trong nhà

Không khí là thứ con người tiêu thụ nhiều nhất trong ngày



Sources of indoor air pollution

Các nguồn gây ô nhiễm không khí trong nhà



Do you know? Bạn có biết?

Our Brain Requires 100L of Oxygen a day

Não bộ chúng ta cần 100L oxy mỗi ngày

If the supply of oxygen is stopped for 3 to 5 minutes, the brain cells will be damaged. It's estimated that the energy consumed by our brain cells is 500 calories per day for an adult, which means we need 100L of oxygen per day.

Nếu việc cung cấp oxy bị dừng lại 3-5 phút, các tế bào não sẽ bị tê liệt. Người ta ước tính rằng năng lượng tiêu thụ bởi các tế bào não của chúng ta là 500 calo mỗi ngày cho một người lớn, có nghĩa là chúng ta cần 100L oxy mỗi ngày.

Effects Of Oxygen-deficient Polluted Air.
Tác động của việc thiếu Oxy trong nguồn không khí bị ô nhiễm.

The ability to focus reduced as CO2 increased with decreased oxygen.
Khả năng tập trung sẽ giảm khi lượng CO2 tăng và lượng Oxy giảm.

We are safe if the density of oxygen in the air does not go below 18%
Chúng ta sẽ được an toàn nếu mật độ oxy trong không khí không dưới 18%

16%
Headaches, Nausea, Increase in Breathing & Pulse Beat, Vomiting.
Nhức đầu, Buồn nôn, Thở gấp, Tim đập nhanh, Ói mửa.

12%
Nausea, Chest Pain, Vomiting, Loss of Strength.
Say sóng, Đau tức ngực, Nôn mửa, Mất sức tạm thời

10%
Face Turns Pale, Vomiting, Unconsciousness.
Da tái xanh, Nôn mửa, Bất tỉnh.

8%
Breathing Stops, Cramps, Death.
Ngưng thở, Chuột rút, Chết lâm sàng

6%
Coma, Death Within 8 Minutes.
Hôn mê, Chết trong vòng 8 phút

• Description

BMM-10-8 2.090.000 VND

BMM-15-10 2.420.000 VND

Made in Malaysia

- Centrifugal fan
- Capacitor motor, built-in thermal cut-out protection, 100% copper coil
- Long life ball bearing
- High performance & super quiet
- Metal housing with rust-proof painting
- Contemporary design of top quality ABS plastic front panel

Panel D

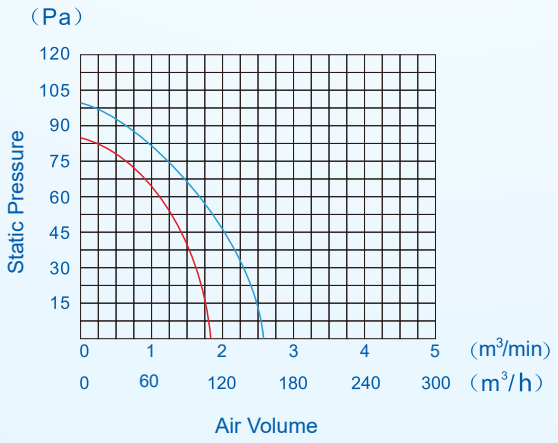
Panel E

Panel R

• Specifications

Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BMM-10-8	100	220V~50Hz	15	1.8 (108)	83	820	30
BMM-15-10	100		20	2.6 (156)	100	900	28

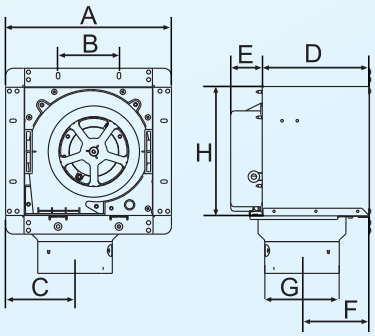
• Performance Curve



BMM-10-8
BMM-15-10

• Dimensions

Model	Dimension mm								Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E	F	G	H			
BMM-10-8	218	80	92	140	42	88	98	171	100	180x180	8~12
BMM-15-10	270	125	106	155	42	93	98	235	100	245x245	12~16



• Description

BMM-19-10 3.240.000 VND

BMM-29-10 3.810.000 VND

Made in Malaysia

- Centrifugal fan
- Capacitor motor, ball bearing, built-in thermal cut-out protection, 100% copper coil
- Metal housing with rust-proof painting
- Contemporary design of top quality ABS plastic front panel

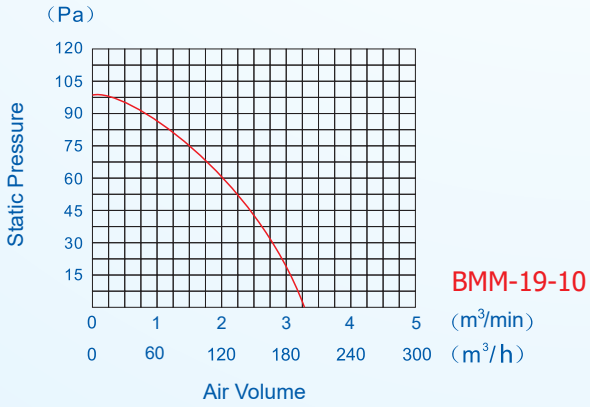
Panel D

Panel R

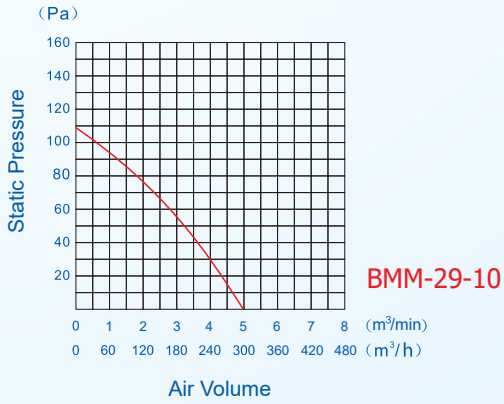
• Specifications

Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BMM-19-10	100	220V~50Hz	32	3.3 (198)	100	1040	35
BMM-29-10	150		32	4.9 (294)	107	660	35

• Performance Curve



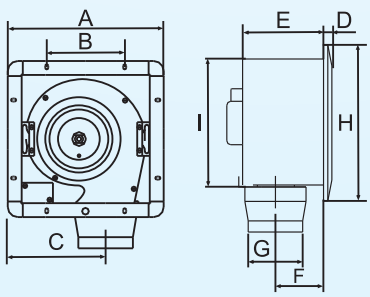
BMM-19-10



BMM-29-10

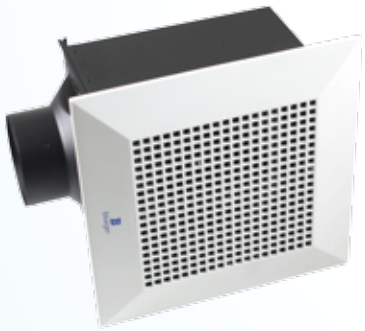
• Dimensions

Model	Dimension mm									Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E	F	G	H	I			
BMM-19-10	267	160	129	18	180	107	98	290	217	100	224x224	15~20
BMM-29-10	307	140	182	18	225	138	145	330	260	150	270x270	25~30



• Description

BM-11-8	1.720.000 VND
BM-15-10	1.920.000 VND



- Centrifugal fan
- Capacitor motor, built-in thermal cut-out protection, 100% copper coil
- Long life ball bearing
- High performance & super quiet
- Metal housing with rust-proof painting
- Contemporary design of top quality ABS plastic front panel

Panel D

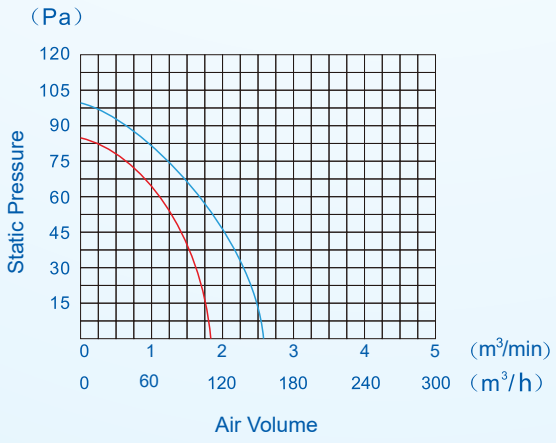
Panel E

Panel R

• Specifications

Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BM-11-8	100	220V~50Hz	15	1.83 (110)	83	820	30
BM-15-10	100		20	2.6 (156)	100	900	28

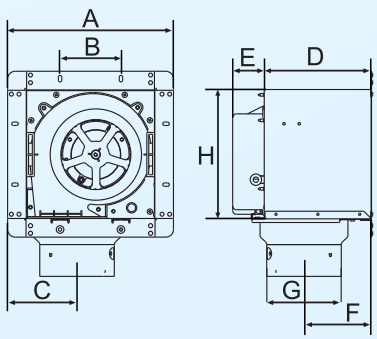
• Performance Curve



BM-11-8
BM-15-10

• Dimensions

Model	Dimension mm								Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E	F	G	H			
BM-11-8	218	80	92	140	42	88	98	171	100	180x180	8~12
BM-15-10	270	125	106	155	42	93	98	235	100	245x245	12~16



• Description

BM-19-10 2.520.000 VND

BM-29-10 2.880.000 VND

- ◆ Centrifugal fan
- ◆ Capacitor motor, ball bearing, built-in thermal cut-out protection, 100% copper coil
- ◆ Metal housing with rust-proof painting
- ◆ Contemporary design of top quality ABS plastic front panel

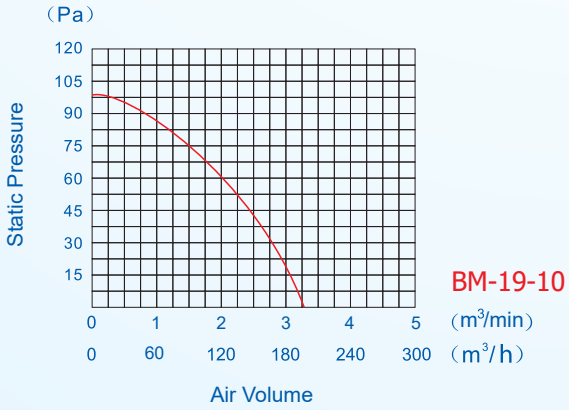
Panel D

Panel R

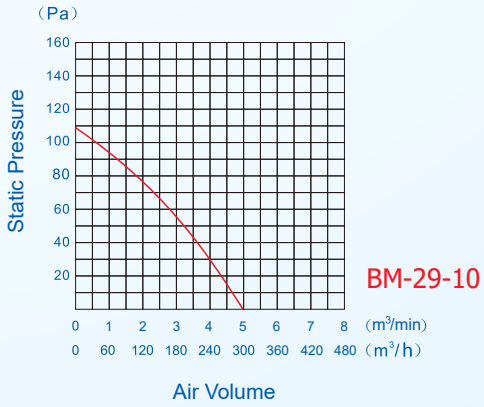
• Specifications

Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BM-19-10	100	220V~50Hz	32	3.3 (198)	100	1040	35
BM-29-10	150		32	4.9 (294)	107	660	35

• Performance Curve



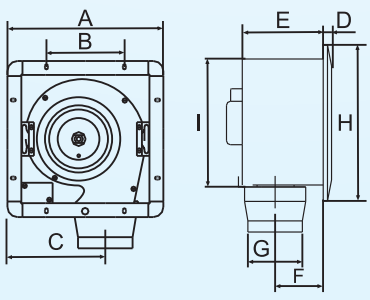
BM-19-10



BM-29-10

• Dimensions

Model	Dimension mm									Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E	F	G	H	I			
BM-19-10	267	160	129	18	180	107	98	290	217	100	224x224	15~20
BM-29-10	307	140	182	18	225	138	145	330	260	150	270x270	25~30



• Description

BM-40-16 4.140.000 VND

BM-57-22 5.620.000 VND

- Centrifugal fan
- Capacitor motor, ball bearing, built-in thermal cut-out protection, 100% copper coil
- Full metal construction for high air volume and heavy duty
- Contemporary design of top quality ABS plastic front panel
- 2 speed adjustable

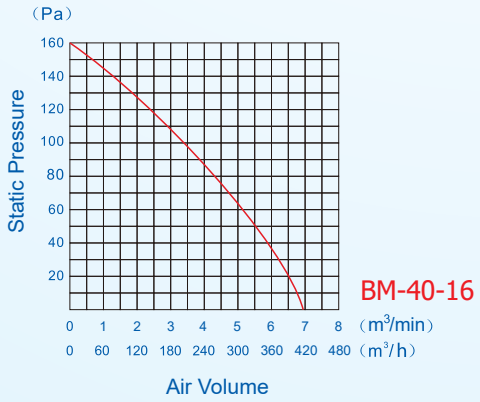
Panel D

Panel R

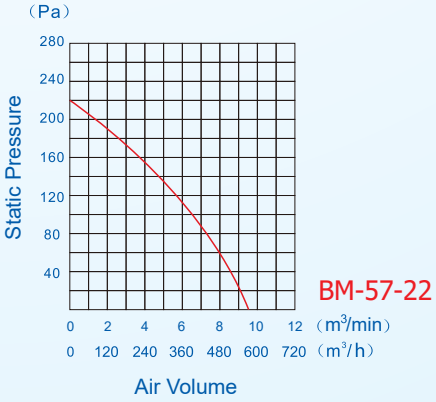
• Specifications

Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BM-40-16	150	220V~50Hz	45	6.8 (408)	160	690	37
BM-57-22	150		115	9.6 (576)	220	740	40

• Performance Curve



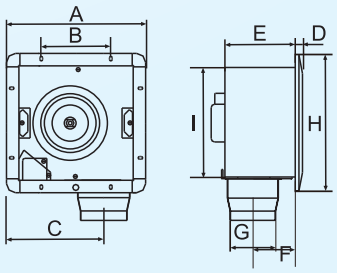
BM-40-16



BM-57-22

• Dimensions

Model	Dimension mm									Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E	F	G	H	I			
BM-40-16	360	200	232	20	225	146	145	390	310	150	320x320	30~35
BM-57-22	424	255	295	20	227	139	145	450	375	150	385x385	40~45



• Description

BP-12-6 1.190.000 VND

BP-15-6 1.260.000 VND

- Centrifugal fan
- Capacitor motor, oil bearing (ball bearing - option) built-in thermal cut out protection, 100% copper coil
- ABS plastic front panel and blower, PP plastic fan body
- Wide range of panels for choosing

Panel D

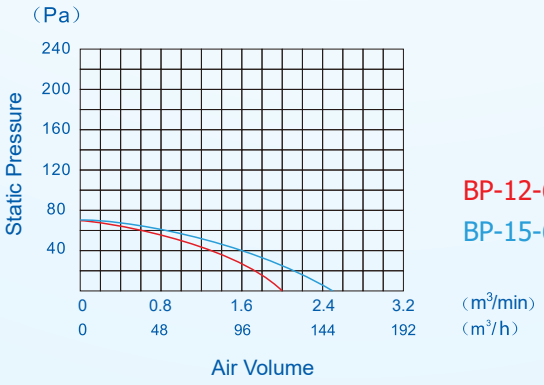
Panel E

Panel R

• Specifications

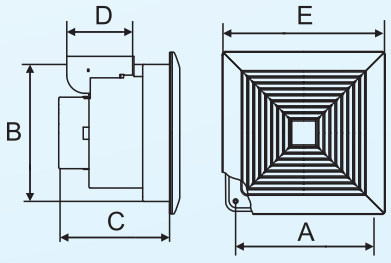
Model	Duct Size Ømm	Volt/Hz	Input Power W	Air Volume m^3/min (m^3/h)	Pressure Pa	RPM	Noise dB(A)
BP-12-6	100	220V~50Hz	23	2.0 (120)	67	1250	32
BP-15-6	100		30	2.5 (150)	68	1200	35

• Performance Curve



• Dimensions

Model	Dimension mm					Applicable Duct Ømm	Installation Space mm	Applicable Area m^2
	A	B	C	D	E			
BP-12-6	220	204	166	100	246	100	208x208	8~12
BP-15-6	240	228	168	100	270	100	232x232	12~16



BP-12-6

BP-15-6

- **Calculate Required Ventilation Air Flow Rate**
  Tính toán lưu lượng thông gió cần thiết

$$Q\ (m^3/h) = ACH\ (times/h) \times V\ (m^3)$$

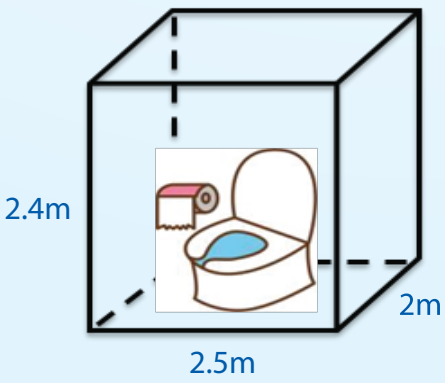
Q: Required ventilation air flow rate / Lưu lượng thông gió cần thiết (m^3/h)
ACH: Air change rate / Tần suất thay đổi không khí (times/h)
V: Room volume / Thể tích phòng (m^3)

- **Required air change rate**
  Tần suất thay đổi không khí cần thiết

Building type Loại công trình	Room type Loại phòng	ACH (times/h)
Home Nhà ở	Living room/ Phòng khách	5
	Bedroom/ Phòng ngủ	6
	Toilet/ Nhà vệ sinh	10
	Kitchen/ Nhà bếp	15
Hotel Khách sạn	Guest room, Corridor/ Phòng khách, Hành lang	5
	Restaurant, Banquet/ Nhà hàng, Phòng tiệc	10
	Dance hall/ Vũ trường	8
	Toilet/ Phòng vệ sinh	10
	Small kitchen, Laundry/ Phòng bếp nhỏ, Phòng giặt là	15
	Large kitchen, Technical room/ Phòng bếp lớn, Phòng kỹ thuật	20
School Trường học	Class room, Library, Meeting room/ Phòng học, Thư viện, Phòng họp	6
	Gymnasiums/ Phòng tập thể dục	8
	Toilet/ Phòng vệ sinh	12
	Kitchen/ Nhà bếp	15
Hospital Bệnh viện	Patient room, Office/ Phòng bệnh nhân, Văn phòng	6
	Recovery room, Bathroom/ Phòng hồi sức, Phòng tắm	10
	Operating room, Sterilization/ Phòng mổ, Phòng khử trùng	15
	Technical room/ Phòng kỹ thuật	20
Cinema Rạp chiếu phim	Smoking area, Toilet/ Phòng hút thuốc, Nhà vệ sinh	12
	Stand area, Corridor/ Khán đài, Hành lang	6
Building Tòa nhà	Office, Exhibition room/ Văn phòng, Phòng trưng bày	6
	Toilet/ Phòng vệ sinh	10
	Meeting room/ Phòng họp	12

ACH accordant with The Society of Heating. Air-Conditioning and Sanitary Engineers of Japan (SHARE)

- **Example: Required ventilation air flow rate for toilet at home**
  Ví dụ: Lưu lượng thông gió cần thiết cho nhà vệ sinh trong căn hộ



ACH = 10 (times/h)
V = 2m x 2.5m x 2.4m = 12(m3)
Q = 10 x 12 = 120 (m3/h)

This excel tool can be downloaded at: http://blueger.vn/quat-thong-gio/

Ceiling Ducted Fan - Selection Tool

This sheet will support you to select Blueger fan based on calculation of ***Air flow rate*** and ***Duct pressure loss*** .

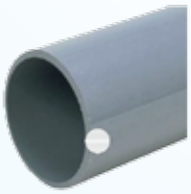
:Must be filled in :Optional setting :Calculated number

Note: 01 ceiling mounted fan should be connected to 01 exhaust duct

Step 1: Air flow rate calculation

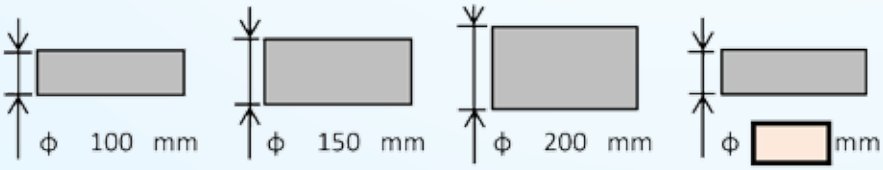
Application	Toilet	ACH (time/h)	10
Room area (m2)	5	Ceiling heigh (m)	2.4
Required air flow rate (m3/h)			120

Step 2: Material of duct

Steel plate tube	VP	Flexible Aluminum	The Other
λ=(0.028)	λ=(0.024)	λ=(0.04)	λ=( )

Step 3: Diameter of duct



Step 4: Duct drawing line from Inlet to Outlet

Section	Inlet*4		Ducting								Outlet			
Items	Grille		Flexible		Straight		90°		Louver		Opt.4			
ζ			0.5		—		0.25		0.5		1.25			
Number		P	1	P	6	m	2	P	1	P		P		
Same as Straight	0.0	m	1.8	m	6.0	m	1.8	m	1.8	m	0.0	m		
	11.4													m

Safety margin: 1.1

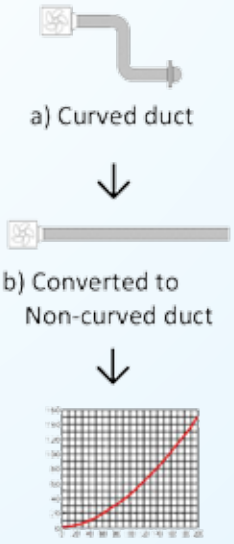
Remark:

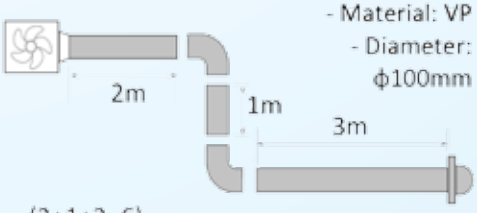
ACH (Air Change Rate) default value accordant with the Society of Heating, Air-Conditioning and Sanitary Engineers of Japan (SHARE)

*1: There are two types of methods to calculate duct pressure loss. In this sheet, duct pressure loss curve is given based on "Converted straight duct method, a)→b)→c)".

*2: Blueger disclaim any responsibility caused by this calculation sheet.

*3: Calculation Example





(2+1+3=6)

Section	Inlet*4		Ducting								Outlet			
Items	Grille		Flexible		Straight		90°		Louver		Opt.4			
ζ			0.5		—		0.25		0.5		1.25			
Number		P	1	P	6	m	2	P	1	P		P		
Same as Straight	0.0	m	1.8	m	6.0	m	1.8	m	1.8	m	0.0	m		
	11.4													m

Safety margin: 1.1

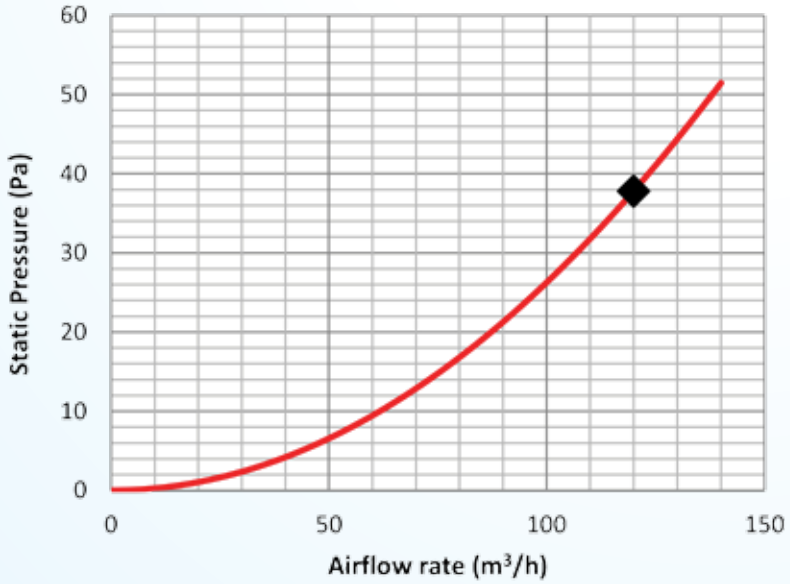
* 4: Fan includes grill pressure loss. You don't have to fill in inlet's detail when you use Blueger fan.

Duct Pressure Loss has been Calculated!

Setting for your graph

- Graph max scale... X: 140 m^3/h (Y scale will be set automatically)

Duct pressure loss of your drawing

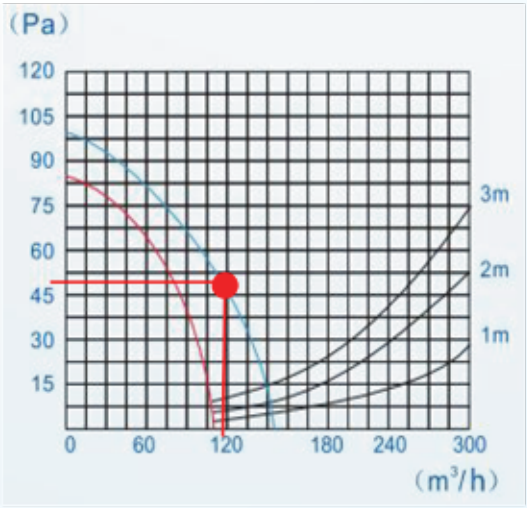


- Find the point you need: (120 m^3/h , 37.8 Pa)
Required air volume

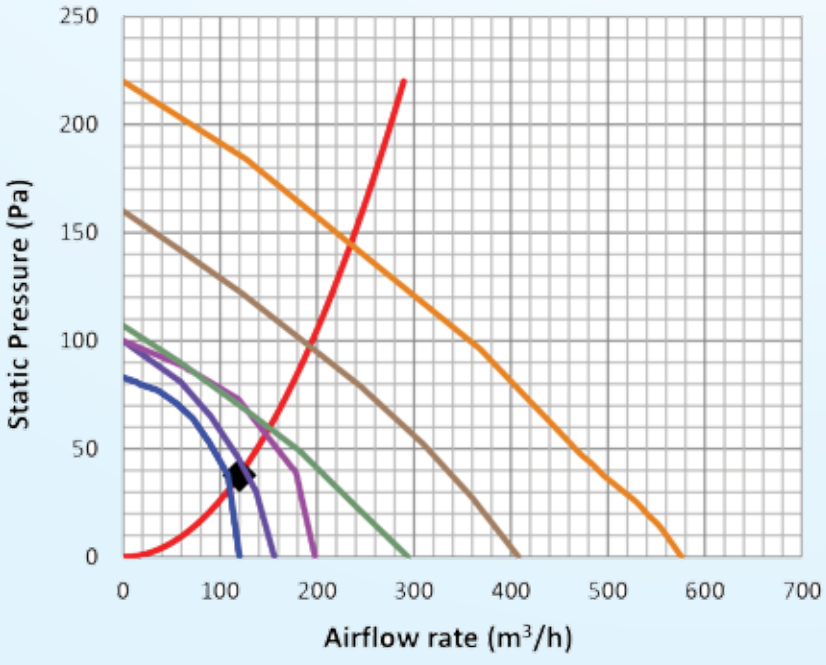
***5: The way to determine Blueger fan (1)**

Trace your duct pressure loss curve to certain Blueger fan's P-Q curve. The cross point shows the air volume and static pressure.

Example
Model: BM-15-10
at 120 m3/h --> ESP = 50 Pa

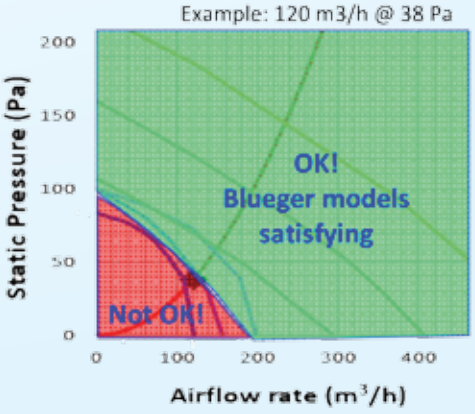


Compound Selection Chart for Blueger Fan



***6: The way to determine Blueger fan (2)**

- Steel plate tube (λ=0.028) ϕ100mm L=12m (11.4m×1.1[Safty margin])
- BM-11-8
- BM-15-10
- BM-19-10
- BM-29-10
- BM-40-16
- BM-57-22
- Future model
- Future model



- Should there be any inconsistency involving parameters, those on the namplate coming with the unit shall prevail.
- For reasons like product improvement, uprades, etc., the product data in this catalog is subject to change without prior notice.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can reult in malfunction, electrical shock or fire.
- Please read the installation manual thoroughly before installlation.

BLUEGER

A trusted brand for ventilating fan

BLUEGER VIET NAM JOINT STOCK COMPANY

Address : No. 26 adjacent to 37 Van Canh urban area Hoai Duc district, Hanoi City
Website : http://blueger.vn
Tell : 02432 008 920 - 02422 176 969
Email : cskh@blueger.vn

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