

Blow Gun

Series **VMG**

RoHS

20% reduction in power consumption

with the SMC “Blow gun” + “S coupler” + “Coil tube”

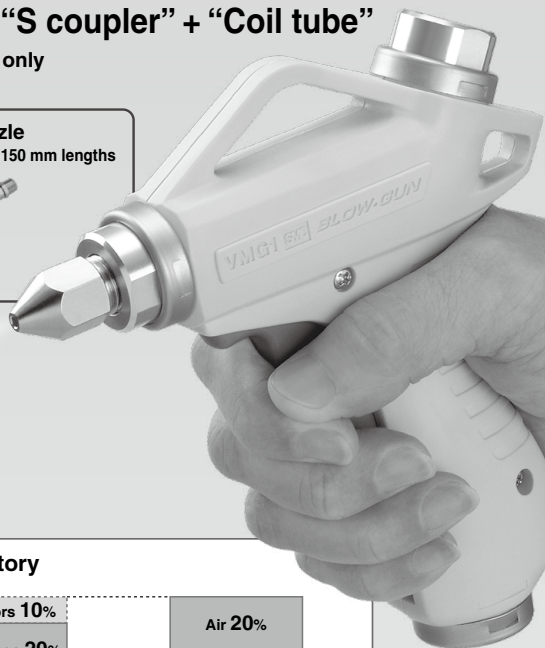
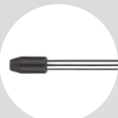
*10% reduction with the “Blow gun (VMG)” only

With cover



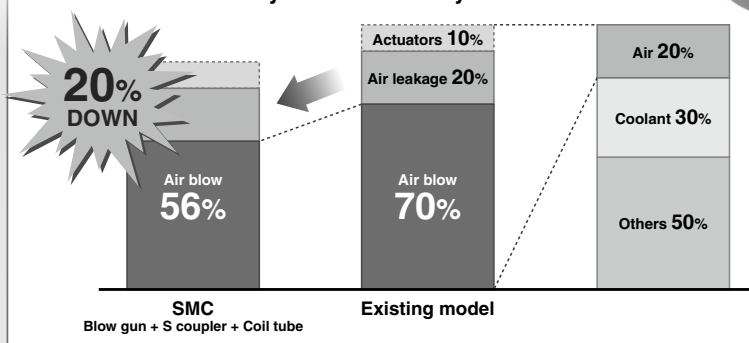
Extension nozzle

Added 100 mm and 150 mm lengths



Pressure loss **1% or less**

■ Amount of electricity used in a factory



VM

VMG

VR

VR51

VHK

VH

VHS

VHS

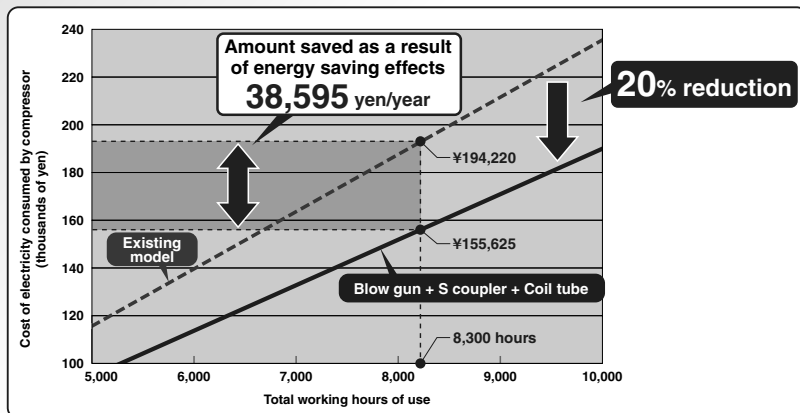
The electricity used by compressors for air accounts for **approximately 20%** of that consumed by the entire factory. Also, **70%** of the air consumed in the process is used for air blowing. SMC blow guns have minimal pressure loss compared with conventional models, so they can achieve equivalent performance at lower pressures and with less volume of air consumption. As a result, it is possible to achieve a **20% reduction** in power consumption.

Energy Saving Pneumatic System Proposal

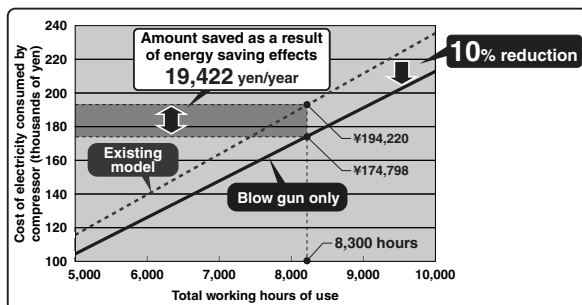
Energy Saving Effects

When the yearly total working hours spent on air blowing amounts to 8,300 hours, use of existing models results in power consumption costs totaling 194,220 yen. When using the SMC system (Blow gun + S coupler + Coil tube), however, the yearly cost is reduced to 155,625 yen, for a total yearly saving of **38,595 yen**, or **20%** of the total.

Energy saving effects with **Blow gun (VMG) + S coupler + Coil tube**



Energy saving effects with **Blow gun (VMG) only**



Calculation conditions

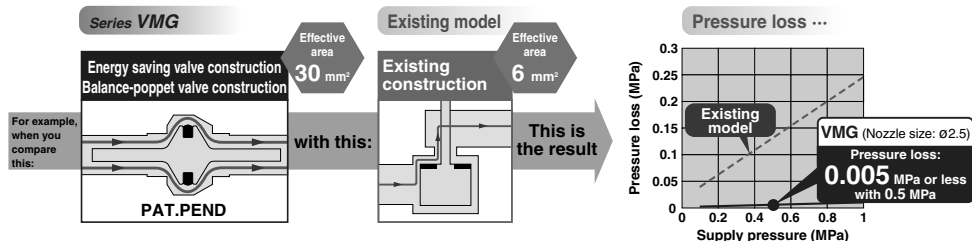
- Blowing distance: 100 mm
- Impact pressure: 0.011 MPa
- Cost of electricity: 15 yen/kWh

Work model

- Blow time: 10 seconds
- Frequency: 12 times/hour
- Working hours: 10 hours/day
- Working days: 250 days/year
- Units used: 100
- Resulting total working hours: 8,300 hours

Valve Construction and Pressure Loss

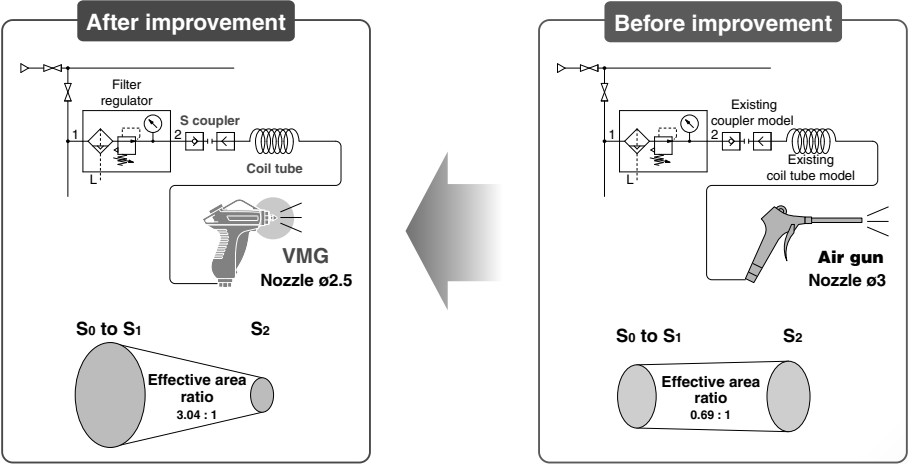
Straighter flowing fluid
"improves pressure loss!"



SMC helps you work toward a revolutionized production system with a focus on saving-energy.

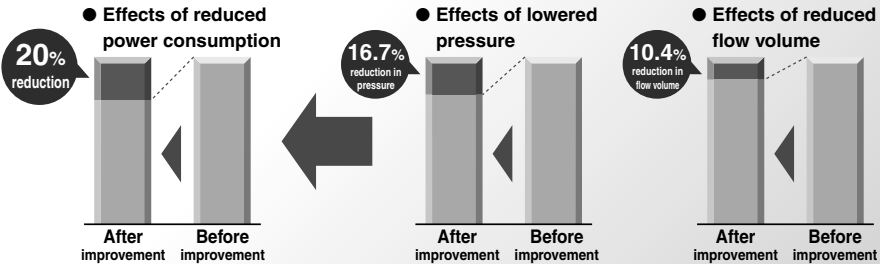
Example of Improvement

Review the air-blow job and change to the SMC blow gun, S coupler and coil tube to create a larger effective area.



| | | After improvement | Before improvement |
|---|-----------------------------------|-------------------------------------|---|
| Equipment | Coupler | S coupler | Existing model |
| | Piping | TCU1065-1-20-X6 | Conventional coil tube model (I.D. ø5, equivalent length 5 m) |
| | Air gun | VMG (Nozzle size ø2.5) | Existing model (Nozzle size ø3) |
| Effective area | Coupler, Piping (S ₀) | 13.45 mm ² | 5.1 mm ² |
| | Air gun (S ₁) | 30 mm ² | 6 mm ² |
| | Nozzle (S ₂) | 4.4 mm ² | 6.3 mm ² |
| Effective area ratio (S ₀ to S ₁ : S ₂) | | 3.04 : 1 | 0.69 : 1 |
| Impact pressure | | 0.011 MPa (at a distance of 100 mm) | 0.011 MPa (at a distance of 100 mm) |
| Regulator pressure | | 0.4 MPa | 0.5 MPa |
| Pressure inside nozzle | | 0.385 MPa | 0.276 MPa |
| Compressor pressure | | 0.5 MPa | 0.6 MPa |
| Air consumption | | 257 dm ³ /min (ANR) | 287 dm ³ /min (ANR) |
| Power consumption by compressor | | 1.25 kW | 1.56 kW |

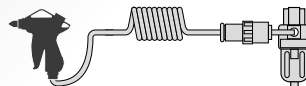
- VM
- VMG
- VR
- VR51
- VHK
- VH
- VHS
- VHS



Blow Gun, Coil Tube and S Coupler Selection

Recommended system in accordance with the distance

Energy saving effects are enhanced through the appropriate blow gun model selection in accordance with the distance from the target object.

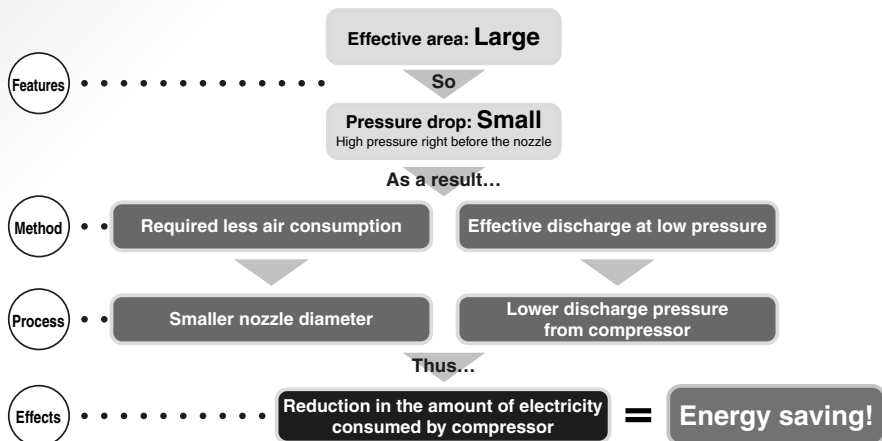


| Distance | Recommended system | | | | |
|-------------|--------------------|-------------|-------------|------------------|-----------|
| | Blow gun | Nozzle size | Fitting | Coil tube* | S coupler |
| Up to 20 mm | VMG1□□-02-01 | ø1 | KQ2H06-02AS | TCU0604□-1-20-X6 | KK4P-06H |
| Up to 40 mm | VMG1□□-02-02 | ø1.5 | KQ2H06-02AS | TCU0604□-1-20-X6 | KK4P-06H |
| Up to 60 mm | VMG1□□-02-03 | ø2 | KQ2H08-02AS | TCU0805□-1-20-X6 | KK4P-08H |
| Over 60 mm | VMG1□□-02-04 | ø2.5 | KQ2H10-02AS | TCU1065□-1-20-X6 | KK4P-10H |

*□: B (Black), W (White), R (Red), BU (Blue), Y (Yellow), G (Green), C (Clear), YR (Orange)

Energy Saving Flow

Air guns with an effective area around 6 mm² are most commonly used. But the SMC blow gun achieves a 30 mm² effective area.



Related Product

For pressure loss improvement **S coupler: Series KK**

Improved fitting's restrictor and leakage

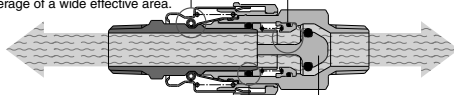


■ Special method of connection and fixation

With a structure that employs no steel balls, the coupler achieves a slim body without narrowing of the channel, allowing coverage of a wide effective area.

■ Smooth channel with minimal unevenness

By not blocking the channel with the valve spring, the loss of effective area can be minimized.



■ Seal structure with minimal leakage

The surface-to-surface design allows super-tight sealing.

■ Conical structure of check valve tip

This structure achieves smooth flow through the channel.

Variations

Nozzle type

Low noise nozzle

Mono-porous nozzle (ø2) 90 to 100 dB
ø1 x 4 low noise nozzles 80 dB or less

Note) Supply pressure: 0.5 MPa
Measured at a 45 degree angle
according to JIS B 8379



* Achieving lower noise by dividing the air blow slit

Male thread nozzle

Nozzle size: ø1, ø1.5, ø2, ø2.5, ø3, ø3.5, ø4



* Powerful and economical

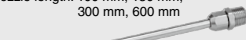
High efficiency nozzle



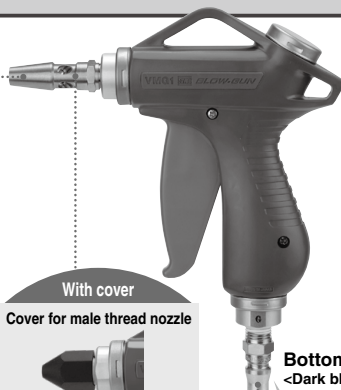
* Making use of Bernoulli effect and achieving high efficiency

Copper extension nozzle

Nozzle length: 100 mm, 150 mm,
300 mm, 600 mm



* Secures more power even at a greater distance from a workpiece.



With cover

Cover for male thread nozzle



Cover for copper extension nozzle
(Outside diameter ø6 only)



One-touch fitting type



Bottom
<Dark blue>

S coupler plug type

Top
<White>

Connection type

Screw-in type

Port size

Rc, NPT, G 1/4

Rc, NPT, G 3/8

S coupler plug type

Plug part no.

KK4P-02MS

KK130P-02MS

One-touch fitting type

Applicable
tube O.D.

Metric size: ø6, ø8, ø10

Inch size: ø1/4", ø5/16", ø3/8"

Operability, Safety, Environment

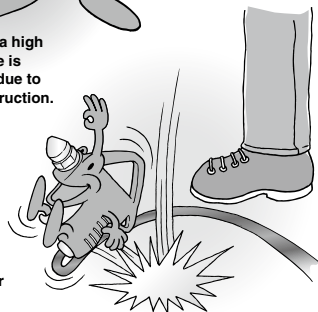
Not affected by supply pressure, assured operability



When using this product even at a high pressure, the same gripping force is required as for a lower pressure due to the unique balance-poppet construction.

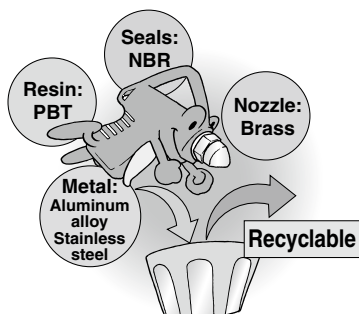
Use of shock-resistant resin

Shock-resistant resin is used in the main body. No cracks, breaks or other damage occurred in a drop test from a 2-meter height or in a human stomp test.



Components are separable. Environmentally friendly

Resin parts are inscribed with the name of the material. Additionally, all parts can be separated by material.



Resin:
PBT

Metal:
Aluminum alloy
Stainless steel

Seals:
NBR

Nozzle:
Brass

Recyclable

Blow Gun Series VMG

RoHS

How to Order

VMG 1 1 W - 02 - 32 - C

Piping entry

| | |
|---|--------|
| 1 | Bottom |
| 2 | Top |

Body color

| | |
|----|-----------|
| W | White |
| BU | Dark blue |

Connection size

| Symbol | Piping connection method | Size and model no. | |
|--------|-------------------------------|---------------------------|-------------|
| 02 | Threaded | Thread size | Rc1/4 |
| 03 | | | Rc3/8 |
| N02 | | | NPT1/4 |
| N03 | | | NPT3/8 |
| F02 | | | G1/4 |
| F03 | | | G3/8 |
| 11 | S coupler plug | Model no. of coupler used | KK4P-02MS |
| 12 | | Model no. of coupler used | KK130P-02MS |
| H06 | Metric size One-touch fitting | Model no. of fitting used | KQ2H06-02S |
| H08 | | Model no. of fitting used | KQ2H08-02S |
| H10 | | Model no. of fitting used | KQ2H10-02S |
| H07 | Inch size One-touch fitting | Model no. of fitting used | KQ2H07-35S |
| H09 | | Model no. of fitting used | KQ2H09-35S |
| H11 | | Model no. of fitting used | KQ2H11-35S |

Note 1) S coupler and fitting are included in the same package.

Note 2) Port size is Rc1/4 if using the S coupler plug.

Note 3) The blow gun port size is Rc1/4 if using the metric size One-touch fitting.

Note 4) The blow gun port size is NPT1/4 if using the inch size One-touch fitting.

With nozzle cover (Only for male thread nozzle, ø6 extension nozzle)

| | |
|-----|--------------------------------|
| Nil | None |
| C | With nozzle cover/HNBR |
| CF | With nozzle cover/Fluororubber |

Nozzle

| Symbol | Type | Nozzle size | Nozzle part no. |
|--------|-----------------------------------|-------------|-----------------|
| Nil | Without nozzle | | |
| 01 | Male thread nozzle | ø1 | KN-R02-100 |
| 02 | | ø1.5 | KN-R02-150 |
| 03 | | ø2 | KN-R02-200 |
| 04 | | ø2.5 | KN-R02-250 |
| 05 | | ø3 | VMG1-R02-300 |
| 06 | | ø3.5 | VMG1-R02-350 |
| 07 | | ø4 | VMG1-R02-400 |
| 11 | High efficiency nozzle | ø1 | KNH-R02-100 |
| 12 | | ø1.5 | KNH-R02-150 |
| 13 | | ø2 | KNH-R02-200 |
| 21 | Low noise nozzle with male thread | ø0.75 x 4 | KNS-R02-075-4 |
| 22 | | ø0.9 x 8 | KNS-R02-090-8 |
| 23 | | ø1 x 4 | KNS-R02-100-4 |
| 24 | | ø1.1 x 8 | KNS-R02-110-8 |

Extension nozzle

| Symbol | Type | Nozzle length | Nozzle size | Nozzle part no. |
|--------|-----------------------------------|---------------|-------------|-----------------|
| 31 | ø6 copper extension nozzle (Note) | 300 mm | ø1.5 | VMG1-06-150-300 |
| 32 | | | ø2 | VMG1-06-200-300 |
| 33 | | 600 mm | ø1.5 | VMG1-06-150-600 |
| 34 | | | ø2 | VMG1-06-200-600 |
| 35 | | 100 mm | ø1.5 | VMG1-06-150-100 |
| 36 | | | ø2 | VMG1-06-200-100 |
| 37 | ø8 copper extension nozzle (Note) | 150 mm | ø1.5 | VMG1-06-150-150 |
| 38 | | | ø2 | VMG1-06-200-150 |
| 41 | | 100 mm | ø2.5 | VMG1-08-250-100 |
| 42 | | | ø3 | VMG1-08-300-100 |
| 43 | | 300 mm | ø3.5 | VMG1-08-350-100 |
| 44 | | | ø2.5 | VMG1-08-250-150 |
| 45 | | 150 mm | ø3 | VMG1-08-300-150 |
| 46 | | | ø3.5 | VMG1-08-350-150 |
| 47 | | 300 mm | ø2.5 | VMG1-08-250-300 |
| 48 | | | ø3 | VMG1-08-300-300 |
| 49 | | 600 mm | ø3.5 | VMG1-08-350-300 |
| 50 | | | ø2.5 | VMG1-08-250-600 |
| 51 | | 300 mm | ø3 | VMG1-08-300-600 |
| 52 | | | ø3.5 | VMG1-08-350-600 |

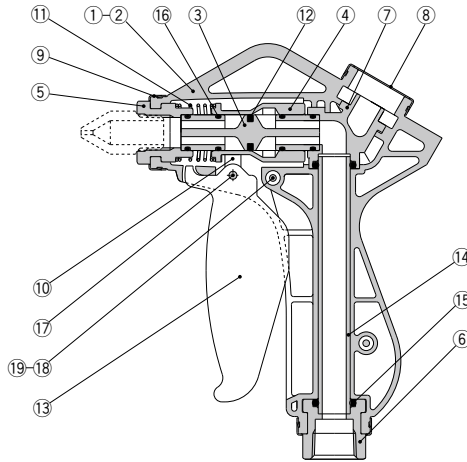
Note) Part number for set of extension nozzle and fitting are included in the same package.

Refer to "How to attach extension nozzle" in the operation manual for assembly procedures.

Specifications

| | |
|--|--|
| Fluid | Air |
| Operating pressure range | 0 to 1.0 MPa |
| Proof pressure | 1.5 MPa |
| Ambient and fluid temperature | -5 to 60°C (No freezing) |
| Flow-rate characteristics (With nozzle removed) | C (dm ³ /s·bar): 6.0, b: 0.25 (Effective area: 30 mm ²) |
| Port size | Rc, NPT, G 1/4, 3/8 |
| Piping entry | Bottom Top |
| Nozzle port size | Rc1/4 |
| Weight (Main unit only) | 165 g |
| Operational force (when the valve is fully open) | 7 N |

Construction



Component Parts

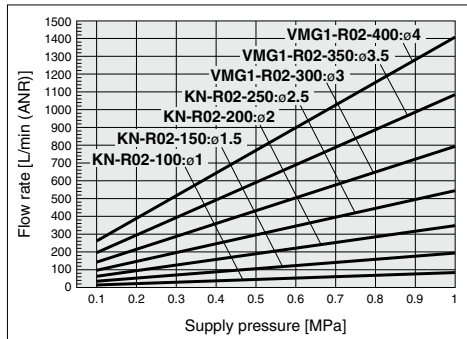
| No. | Description | Material | Note |
|-----|---------------------------------|-----------------|---|
| 1 | Body L | PBT | |
| 2 | Body R | PBT | |
| 3 | Main valve | PBT | |
| 4 | Valve guide | POM | |
| 5 | Nozzle holder | Aluminium alloy | Anodized |
| 6 | Port | Aluminium alloy | Anodized |
| 7 | Elbow | PBT | Only for the VMG12□ |
| 8 | Cover | Stainless steel | |
| 9 | Ring | Stainless steel | |
| 10 | Arm | PBT | |
| 11 | Spring | Stainless steel | |
| 12 | Main valve seal | HNBR | |
| 13 | Lever | PBT | |
| 14 | Piping (bottom) | POM | Only for the VMG11□ Combined with the elbow (7). |
| 15 | O-ring | NBR | |
| 16 | O-ring | NBR | |
| 17 | Parallel pin | Stainless steel | |
| 18 | Cross recessed round head screw | Stainless steel | |
| 19 | Hexagon nut | Stainless steel | |

Note) Grease is used on rubber and sliding sections.

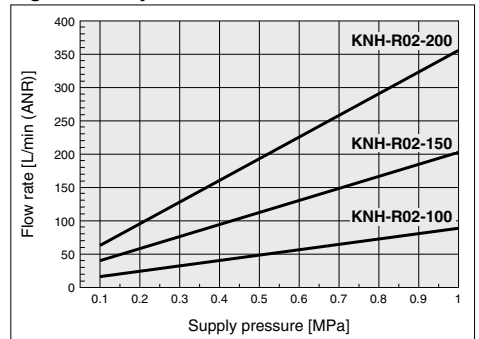
Flow-rate Characteristics

Note) Values when the main valve is fully open

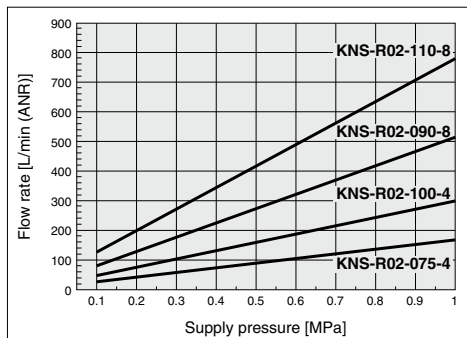
Male thread nozzle



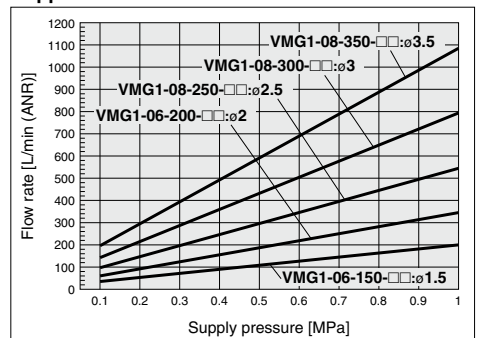
High efficiency nozzle



Low noise nozzle with male thread



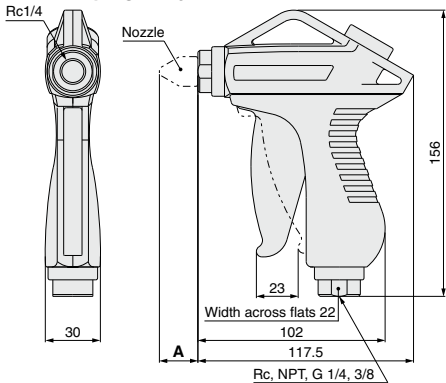
Copper extension nozzle



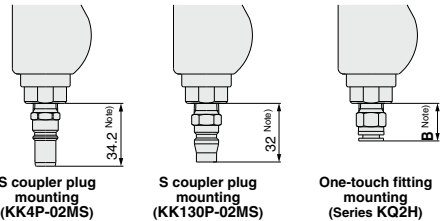
VM
VMG
VR
VR51
VHK
VH
VHS□
VHS

Dimensions

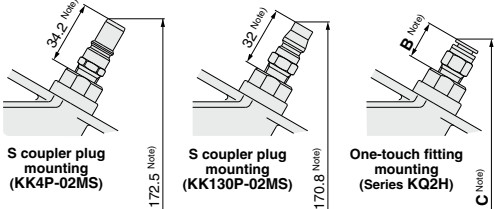
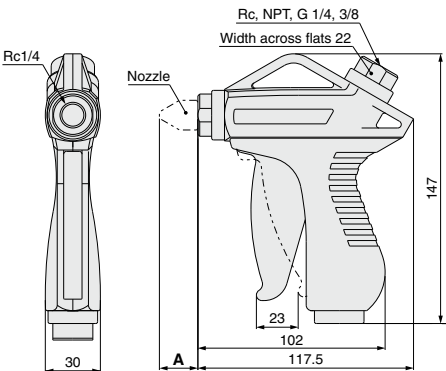
VMG11/Piping entry: Bottom



Note) Reference dimensions after installation



VMG12/Piping entry: Top



| Symbol | Type | Nozzle part no. | Nozzle size | A (Note) |
|--------|-----------------------------------|--------------------------------|-------------|----------|
| 01 | Male thread nozzle | KN-R02-100 | ø1 | 23.4 |
| 02 | | KN-R02-150 | ø1.5 | 23 |
| 03 | | KN-R02-200 | ø2 | 22.5 |
| 04 | | KN-R02-250 | ø2.5 | 22.1 |
| 05 | | VMG1-R02-300 | ø3 | 22 |
| 06 | | VMG1-R02-350 | ø3.5 | 21.5 |
| 07 | | VMG1-R02-400 | ø4 | 21.5 |
| 11 | High efficiency nozzle | KNH-R02-100 | ø1 | 44 |
| 12 | | KNH-R02-150 | ø1.5 | |
| 13 | | KNH-R02-200 | ø2 | |
| 21 | Low noise nozzle with male thread | KNS-R02-075-4 | ø0.75 x 4 | 12 |
| 22 | | KNS-R02-090-8 | ø0.9 x 8 | |
| 23 | | KNS-R02-100-4 | ø1 x 4 | |
| 24 | | KNS-R02-110-8 | ø1.1 x 8 | |
| 31 | ø6 copper extension nozzle (Note) | Nozzle length: VMG1-06-150-300 | ø1.5 | 298 |
| 32 | | Nozzle length: VMG1-06-200-300 | ø2 | 598 |
| 33 | | Nozzle length: VMG1-06-150-600 | ø1.5 | |
| 34 | | Nozzle length: VMG1-06-200-600 | ø2 | 98 |
| 35 | | Nozzle length: VMG1-06-150-100 | ø1.5 | |
| 36 | | Nozzle length: VMG1-06-200-100 | ø2 | 148 |
| 37 | | Nozzle length: VMG1-06-150-150 | ø1.5 | |
| 38 | | Nozzle length: VMG1-06-200-150 | ø2 | |

Note) Reference dimensions after installation

| Symbol | Type | Nozzle part no. | Nozzle size | A (Note) |
|--------|-----------------------|-----------------|-------------|----------|
| 41 | Nozzle length: 100 mm | VMG1-08-250-100 | ø2.5 | 98 |
| 42 | | VMG1-08-300-100 | ø3 | |
| 43 | | VMG1-08-350-100 | ø3.5 | |
| 44 | | VMG1-08-250-150 | ø2.5 | |
| 45 | Nozzle length: 150 mm | VMG1-08-300-150 | ø3 | 148 |
| 46 | | VMG1-08-350-150 | ø3.5 | |
| 47 | | VMG1-08-250-300 | ø2.5 | |
| 48 | | VMG1-08-300-300 | ø3 | |
| 49 | Nozzle length: 300 mm | VMG1-08-350-300 | ø3.5 | 298 |
| 50 | | VMG1-08-250-600 | ø2.5 | |
| 51 | | VMG1-08-300-600 | ø3 | |
| 52 | | VMG1-08-350-600 | ø3.5 | |

| Type | One-touch fitting model | B (Note) | C (Note) |
|-------------------------------|-------------------------|----------|----------|
| Metric size One-touch fitting | KQ2H06-02S | 17 | 158 |
| | KQ2H08-02S | 20.5 | 161.5 |
| | KQ2H10-02S | 27.5 | 168 |
| | KQ2H07-35S | 17 | 158 |
| Inch size One-touch fitting | KQ2H09-35S | 20.5 | 161.5 |
| | KQ2H11-35S | 27.5 | 168 |

Note) Reference dimensions after installation

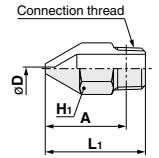
Dimensions: Nozzles/Series KN

Male thread nozzle: KN



| Part no. | Nozzle size D | Connection thread | Width across flats H ₁ | L ₁ | A* |
|--------------|------------------|----------------------|--------------------------------------|----------------|------|
| KN-R02-100 | ø1 | R1/4 | 14 | 31.4 | 25.4 |
| KN-R02-150 | ø1.5 | | | 31 | 25 |
| KN-R02-200 | ø2 | | | 30.5 | 24.5 |
| KN-R02-250 | ø2.5 | | | 30.1 | 24.1 |
| VMG1-R02-300 | ø3 | | | 30 | 24 |
| VMG1-R02-350 | ø3.5 | | | 29.5 | 23.5 |
| VMG1-R02-400 | ø4 | | | 29.5 | 23.5 |

* Reference dimensions after R thread installation

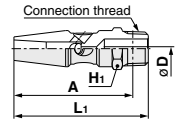


High efficiency nozzle: KNH



| Part no. | Nozzle size D | Connection thread | Width across flats H ₁ | L ₁ | A* |
|-------------|------------------|----------------------|--------------------------------------|----------------|----|
| KNH-R02-100 | ø1 | R1/4 | 14 | 52 | 46 |
| KNH-R02-150 | ø1.5 | | | | |
| KNH-R02-200 | ø2 | | | | |

* Reference dimensions after R thread installation

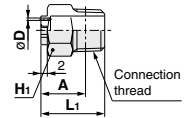


Low noise nozzle with male thread: KNS



| Part no. | Nozzle size D | Connection thread | Width across flats H ₁ | L ₁ | A* |
|---------------|------------------|----------------------|--------------------------------------|----------------|----|
| KNS-R02-075-4 | ø0.75 x 4 | R1/4 | 14 | 20 | 14 |
| KNS-R02-090-8 | ø0.9 x 8 | | | | |
| KNS-R02-100-4 | ø1 x 4 | | | | |
| KNS-R02-110-8 | ø1.1 x 8 | | | | |

* Reference dimensions after R thread installation



Copper extension nozzle set

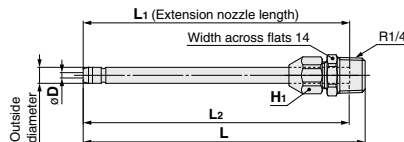


| Part no. | Nozzle size D | Outside diameter | L ₁ | L ₂ (Note1) | L (Note1) | Width across flats H ₁ |
|-----------------|------------------|---------------------|----------------|------------------------|-----------|--------------------------------------|
| VMG1-06-150-100 | ø1.5 | ø6 | 100 | 100 | 106 | 12 |
| VMG1-06-200-100 | ø2 | | 150 | 150 | 156 | |
| VMG1-06-150-150 | ø1.5 | | 300 | 300 | 306 | |
| VMG1-06-200-150 | ø2 | | 600 | 600 | 606 | |
| VMG1-06-150-300 | ø1.5 | | 300 | 300 | 306 | |
| VMG1-06-200-300 | ø2 | | 600 | 600 | 606 | |
| VMG1-06-150-600 | ø1.5 | ø8 | 300 | 300 | 306 | 14 |
| VMG1-06-200-600 | ø2 | | 600 | 600 | 606 | |
| VMG1-08-250-100 | ø2.5 | | 100 | 100 | 106 | |
| VMG1-08-300-100 | ø3 | | 150 | 150 | 156 | |
| VMG1-08-350-100 | ø3.5 | | 300 | 300 | 306 | |
| VMG1-08-250-150 | ø2.5 | | 150 | 150 | 156 | |
| VMG1-08-300-150 | ø3 | | 300 | 300 | 306 | |
| VMG1-08-350-150 | ø3.5 | | 600 | 600 | 606 | |
| VMG1-08-250-300 | ø2.5 | | 300 | 300 | 306 | |
| VMG1-08-300-300 | ø3 | | 600 | 600 | 606 | |
| VMG1-08-350-300 | ø3.5 | | 300 | 300 | 306 | |
| VMG1-08-250-600 | ø2.5 | | 600 | 600 | 606 | |
| VMG1-08-300-600 | ø3 | | 300 | 300 | 306 | |
| VMG1-08-350-600 | ø3.5 | | 600 | 600 | 606 | |

Note 1) Reference dimensions after installation

Note 2) Copper extension nozzle and self-align fitting are included in the same package, (but unassembled).

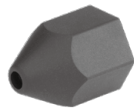
Refer to "How to attach extension nozzle" in the operation manual for assembly procedures.



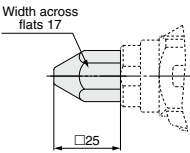
Dimensios: Nozzle Cover

Cover for male thread nozzle

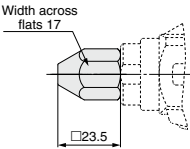
(mm)



| Nozzle cover part no. | Material | Applicable blow gun model | |
|-----------------------|--------------|---------------------------|--------------------|
| | | Model | Nozzle type |
| P5670129-01 | HNBR | VMG1□□-□-01 to 04 | Male thread nozzle |
| P5670129-01F | Fluororubber | | ø1 to ø2.5 |
| P5670129-02 | HNBR | VMG1□□-□-05 to 07 | Male thread nozzle |
| P5670129-02F | Fluororubber | | ø3 to ø4 |



VMG1□-□-1 to 04



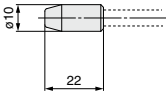
VMG1□-□-05 to 07

Cover for copper extension nozzle

(mm)



| Nozzle cover part no. | Material | Applicable blow gun model | |
|-----------------------|--------------|---------------------------|------------------|
| | | Model | Nozzle type |
| P5670129-11 | HNBR | VMG1□□-□-31 to 38 | ø6 copper |
| P5670129-11F | Fluororubber | | extension nozzle |



VMG1□-□-31 to 38



Series VMG

Specific Product Precautions 1

Be sure to read this before handling.

Selection

⚠ Warning

1. Check the specifications.

The products in this catalog are designed to be used in compressed air systems only. If the products are used in an environment where pressure or temperature is out of the specified range, damage and/or malfunction may result. Do not use under such conditions.

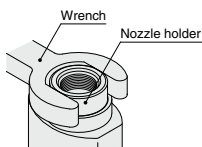
⚠ Caution

1. Do not apply the blow gun to flammable, explosive or toxic substances such as gas, fuel gas or refrigerant. Such substances may exude from inside the blow gun.

Mounting

⚠ Warning

1. Install a stop valve on the supply pressure side of the blow gun to enable emergency shut off in case of unexpected leakage or damage.
2. When installing a nozzle on the blow gun, wrap pipe tape around the threads of the nozzle.
3. When installing the nozzle, secure the nozzle holder of the blow gun by applying a wrench of 22 mm width across flats to the two chamfered surfaces of the holder without applying force to the body. Then, tighten the nozzle with force within the torque range below. As a guideline, it is equivalent to 2 to 3 additional turns with a tool after manual tightening.



| | |
|--------------------------------|--------------|
| Nozzle tightening torque range | 12 to 14 N·m |
|--------------------------------|--------------|

Insufficient tightening may cause loosening of the nozzle.

Piping

⚠ Caution

1. Check the model, type and size before installation.

Also, confirm that there is no scratches, gouges or cracks on the product.

2. Before piping

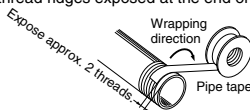
Before piping, it should be thoroughly blown out with air (flushing) or washed to remove chips, cutting oil and other debris from inside the pipe.

Piping

⚠ Caution

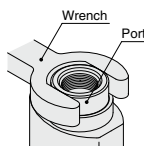
3. Wrapping of pipe tape

When screwing together pipes and fittings, etc., be certain that chips from the pipe threads and sealing material do not get inside the blow gun. Also, when the pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.



4. When tightening the threads, secure the nozzle holder of the blow gun by applying a wrench of 22 mm width across flats to the two chamfered surfaces of the holder without applying force to the body. Then, tighten the nozzle with torque specified in the table below. As a guideline, it is equivalent to 2 to 3 additional turns with a tool after manual tightening.

Be careful that tightening with torque beyond the ranges in the table below may cause damage to the body.



| Male thread | Tightening torque N·m |
|-------------|-----------------------|
| R1/4 | 12 to 14 |
| R3/8 | 22 to 24 |

5. Allow extra length when connecting a tube to accommodate changes in tube length due to pressure.
6. Confirm that no twisting, turning or tensile force or moment load is applied to the port or tube. This may cause fittings to fracture or tubes to be crushed, burst or come loose.
7. Do not abrade, entangle or scratch the tube. This may cause the tube to be crushed, burst or come loose.

Lubrication

⚠ Warning

1. Do not lubricate the product.

It may contaminate or damage the target object.

Air Supply

⚠ Warning

1. Use clean air.

Do not use compressed air which includes chemicals, synthetic oils containing organic solvents, salt or corrosive gases, etc., as it can cause damage or malfunction.

VM

VMG

VR

VR51

VHK

VH

VHS

VHS



Series VMG

Specific Product Precautions 2

Be sure to read this before handling.

Air Supply

Caution

1. Install air filters.

Install air filters at the upstream side of blow gun. Choose the filtration degree of 5 μ m or finer.

2. Install an after-cooler, air dryer or water droplet separator, etc.

Air excessive drainage may cause a malfunction of blow gun and contaminate or damage the target object. To prevent this, install an after-cooler, air dryer or water droplet separator, etc.

Operating Environment

Warning

1. Do not use in an atmosphere of corrosive gases, chemicals, sea water, water or water vapor or in an environment where such substances may adhere.
2. Provide shading in an environment where the product is exposed to the sunlight.
3. Do not use in an environment where a heat source is at a close distance.
4. Do not use in an environment where static electricity is a problem. It may cause malfunction or failure of the system. Please contact SMC for use in such an environment.
5. Do not use in an environment where spatters are generated. There is danger of fires caused by spattering. Please contact SMC for use in such an environment.
6. Do not use in an environment where the product is exposed to cutting oil, lubricating oil or coolant oil. Please contact SMC for use in an environment where the product is exposed to such liquid as cutting oil, lubricating oil or coolant oil.

Maintenance

Caution

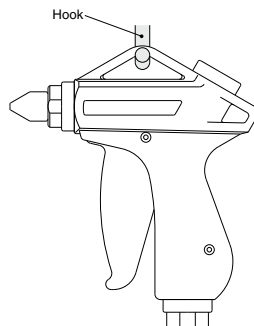
1. In periodical inspections, check the following items and replace the parts if necessary.
 - a) Scratches, gouges, abrasion, corrosion
 - b) Air leakage
 - c) Twisting, crushing and turning of connected tubes
 - d) Hardening, deterioration and softening of connected tubes
 - e) Loosening of nozzles
2. When removing the product, first stop the pressure supply, exhaust compressed air in the piping and check the condition of atmospheric release.
3. Do not disassemble or remodel the body of the product.

Handling

Warning

1. To prevent lurching of the nozzle due to air pressure, confirm that the nozzle is not loosened or rattling by pulling it by hand before operation.
2. Make sure to wear safety goggles to protect yourself from splashed substances.
3. Do not direct the tip of the nozzle at the face or other parts of a human body. It may cause danger to personnel.
4. Do not use the product to clean or remove toxic substances or chemicals.
5. Do not drop, step on or hit the product. It may cause damage to the product.
6. Do not use the product to disturb public order or public hygiene.
7. This product is not a toy.
8. After blowing, make sure to hang the product on a hook, etc.

If leaving the product in a dusty place, particles will enter the product and may result in a malfunction.



9. When the blow gun is used or stored, confirm that no twisting, turning or tensile force or moment load is applied to the port or tube. This may cause fittings to fracture or tubes to be crushed, burst or come loose.
10. When attaching a nozzle cover, align the hex parts of the nozzle and nozzle cover before covering. When attaching an extension nozzle cover, confirm that the nozzle tip is completely inserted into the extension nozzle cover.
11. Do not use a nozzle cover or extension nozzle cover if it is cracked or does not fit securely, and replace with a new cover.