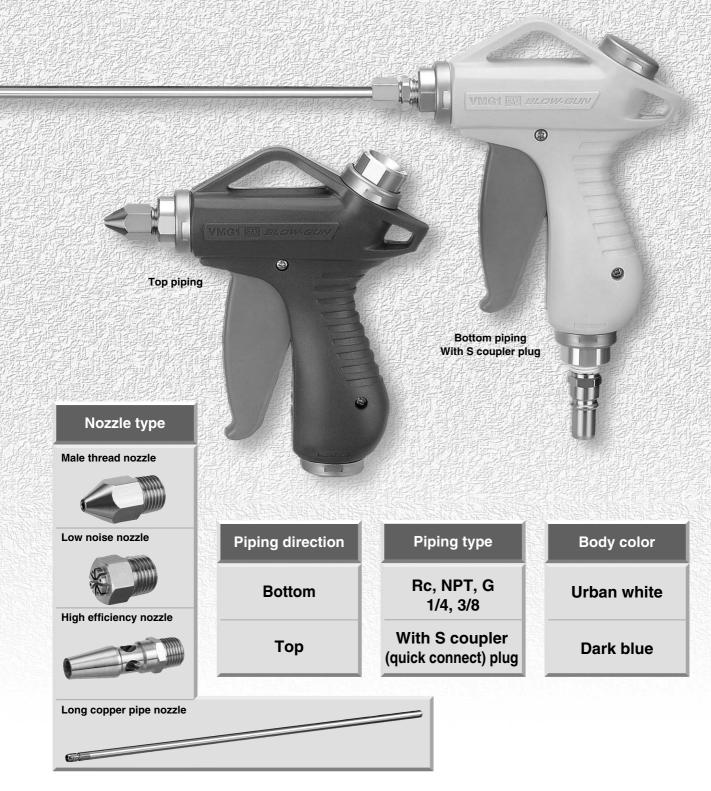
Blow Gun Series VNG



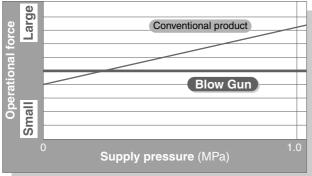
<Dark blue>
Bottom piping

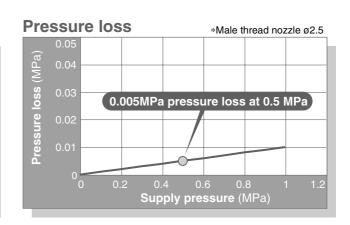


SMC



Provides constant operational force irrespective of the supply pressure





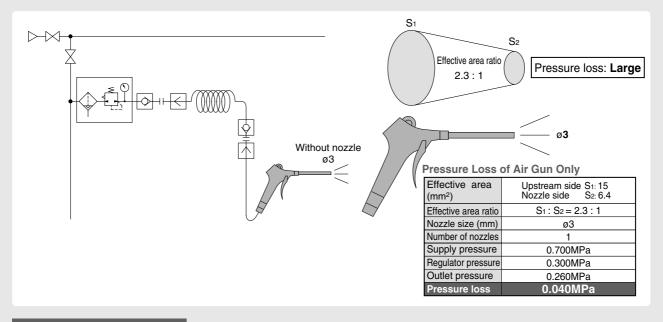
2



Example of Improvement

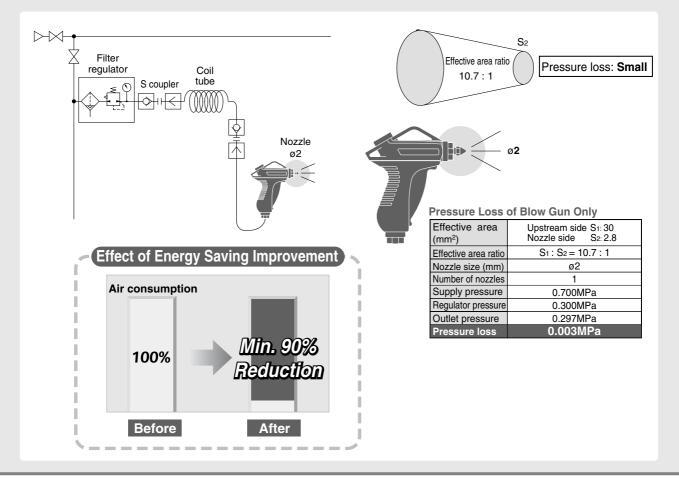
Before Improvement

In the case of air guns, energy saving measures are not considered.



After Improvement

Change to fittings, tubing and Blow Gun with large effective areas.



Related Products:

Nozzle: Series KN·····P.15-7-7	S coupler: Series KKA·····P.15-7-8
S coupler: Series KK·····P.15-7-8	Regulator: Series AR ·····P.15-7-9
S coupler: Series KKH·····P.15-7-8	Filter regulator: Series AW······P.15-7-10

K□

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HD

D

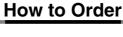
MS

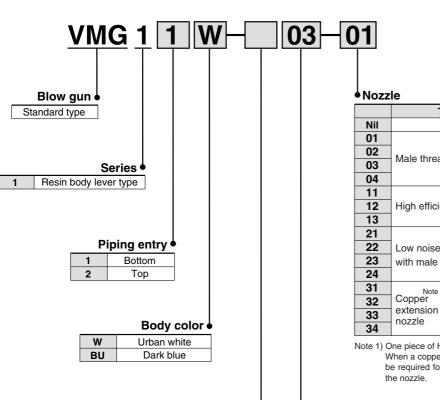
TΠ

VMG

Blow Gun Series VMG







Piping connection type

Rc

NPT

G

Nil

Ν

F

	Ту	ре	Nozzle model	Nozzle size
Nil			Without nozzle	
01			KN-R02-100	Ø1
02	Male thread	nozzlo	KN-R02-150	Ø1.5
03	Male lilleau	nozzie	KN-R02-200	ø2
04			KN-R02-250	ø2.5
11			KNH-R02-100	Ø1
12	High efficien	cy nozzle	KNH-R02-150	Ø1.5
13			KNH-R02-200	ø2
21			KNS-R02-075-4	Ø0.75 x 4
22	Low noise nozzle		KNS-R02-090-8	Ø0.9 x 8
23	with male th	read	KNS-R02-100-4	Ø1 x 4
24			KNS-R02-110-8	Ø1.1 x 8
31	_ Note 1)	Length	KNL3-06-150	ø1.5
32	Copper	300mm	KNL3-06-200	ø2
33	extension nozzle	Length	KNL6-06-150	Ø1.5
34	TIOLLIG	600mm	KNL6-06-200	Ø2

Note 1) One piece of H06-02 self-align fitting is attached. When a copper extension nozzle is ordered separately, a self-align fitting will also be required for connection. Order one with the above part number in addition to

Connection size

	Piping connection system	Size and	l part no.
02	Corow in type	Port size	1/4
03	Screw-in type	FUILSIZE	3/8
11	With S coupler plug Note1)	Plug part no.	KK4P-02MS

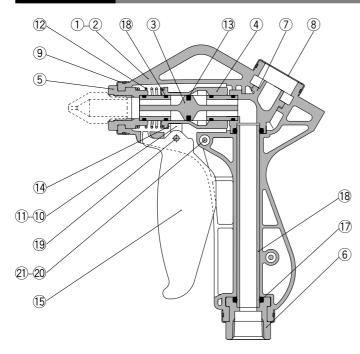
Note 1) In case of a type with an S coupler plug, specify no symbol (Rc) for the piping connection type. The size is Rc 1/4.

Specifications

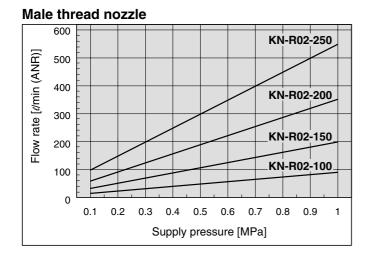
Fluid	Ai	r	
Operating pressure range	0 to 1.0	OMPa	
Proof pressure	1.5M	1Pa	
Ambient and fluid temperature	-5 to 60°C (With no condensation)		
Effective area	30mm ² (without nozzle)		
Port size	Rc, NPT, G, 1/4, 3/8		
Piping entry	Bottom	Тор	
Nozzle port size	Rc 1/4		
Weight	180g		
Operational force (when the valve is fully open)	71	N	



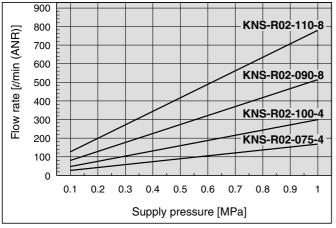
Construction



Flow Characteristics



Low noise nozzle with male thread

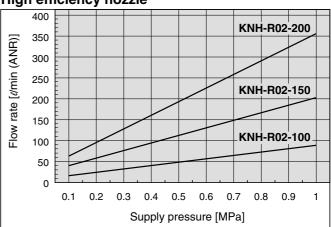


Component Parts

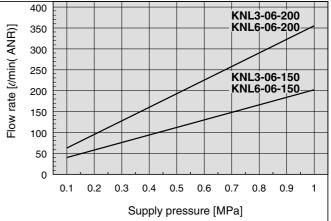
lo.	Description	Material	Note	
1	Body L	PBT		
2	Body R	PBT		
3	Main valve	PBT		
4	Valve guide	Aluminium alloy	Chromate	
5	Nozzle holder	Aluminium alloy	Anodized	
6	Port	Aluminium alloy	Anodized	K
7	Elbow	PBT		
8	Cover	Stainless steel		
9	Ring	Stainless steel		Μ□
10	Arm L	Stainless steel		
1	Arm R	Stainless steel		H
12	Spring	Stainless steel		
13	Main valve seal	HNBR		D
14	Guide cover	Stainless steel		
15	Lever	PBT		140
16	Tube	PBT	*Only for VMG11	MS
\bigcirc	O-ring	NBR		
18	O-ring	NBR		T
19	Parallel pin	Stainless steel		
20	Round head Phillips screw	Stainless steel		VMG
21	Hexagon nut	Stainless steel		

Note) Values when the main valve is fully open.

High efficiency nozzle

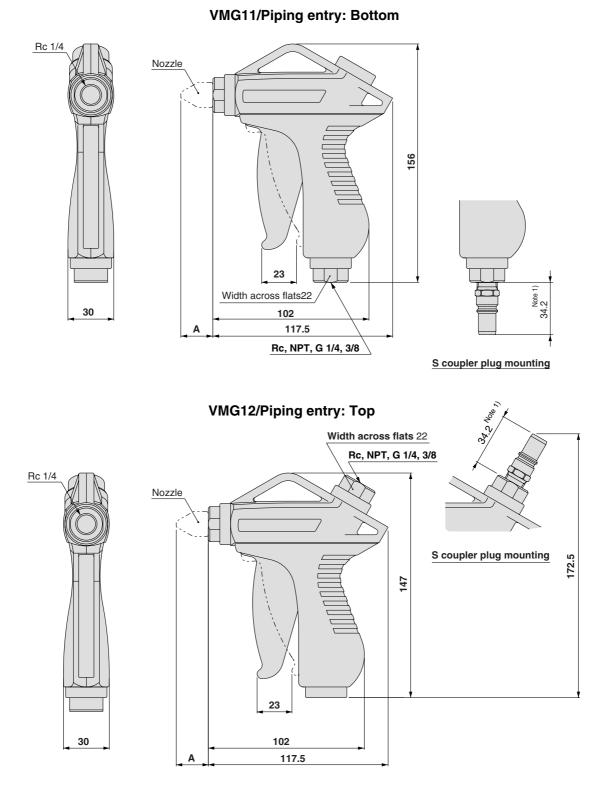








Dimensions



			mm
Туре	Nozzle model	Nozzle size	A Note 1)
Male thread nozzle	KN-R02-100	Ø1	23.4
	KN-R02-150	ø1.5	23
	KN-R02-200	ø2	22.5
	KN-R02-250	Ø2.5	22.1
	KNH-R02-100	Ø1	44
High efficiency nozzle	KNH-R02-150	Ø1.5	44
	KNH-R02-200	ø2	44

			mm
Туре	Nozzle model	Nozzle size	A Note 1)
	KNS-R02-075-4	Ø0.75 x 4	12
Low noise nozzle	KNS-R02-090-8	Ø0.9 x 8	12
with male thread	KNS-R02-100-4	Ø1 x 4	12
	KNS-R02-110-8	Ø1.1 x 8	12
	KNL3-06-150	Ø1.5	305.3
Copper extension nozzle	KNL3-06-200	Ø2	305.3
(with self align fitting H06-02)	KNL6-06-150	Ø1.5	605.3
	KNL6-06-200	Ø2	605.3

Note 1) Reference dimensions after installation



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(mm)

Connection

(mm)

thread

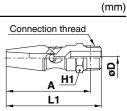
Dimensions: Nozzle/Series KN

Male thread nozzle: KN

Male thread nozzle: K	(N						(mm)
	Model	Nozzle size D	Connection thread	Width across flats H1	L1	А	Connection thread
	KN-R02-100	ø1	R 1/4	14	31.4	25.4	\backslash
	KN-R02-150	ø1.5	R 1/4	14	31	25	<u>\</u>
	KN-R02-200	ø2	R 1/4	14	30.5	24.5	
and the second second	KN-R02-250	ø2.5	R 1/4	14	30.1	24.1	_┰╤╧╌┟╌─╌╨┼─╢╴

High efficiency nozzle: KNH

	Model	Nozzle size D	Connection thread	Width across flats H1	L1	Α
	KNH-R02-100	ø1	R 1/4	14	52	46
S	KNH-R02-150	ø1.5	R 1/4	14	52	46
	KNH-R02-200	ø2	R 1/4	14	52	46



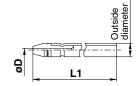
L1

Low noise nozzle with male thread: KNS

Model	Nozzle size D	Connection thread	Width across flats H1	L1	Α
KNS-R02-075-4	ø0.75 x 4	R 1/4	14	20	14
KNS-R02-090-8	ø0.9 x 8	R 1/4	14	20	14
KNS-R02-100-4	ø1 x 4	R 1/4	14	20	14
 KNS-R02-110-8	ø1.1 x 8	R 1/4	14	20	14

Copper extension nozzle: KNL

Model	Nozzle size D	Outside diameter	L1
KNL3-06-150	ø1.5	ø6	300
KNL3-06-200	ø2	ø6	300
KNL6-06-150	ø1.5	ø6	600
KNL6-06-200	ø2	ø6	600



2

Α

L1

H1

Note) When a copper extension nozzle is ordered separately, a self-align fitting will also be required for connection with the blow gun. Order one with the following part number in addition to the nozzle.

Self-align fittings (For copper extension nozzle connection)

Half union H06-02





Product Profile: Related Products: S Couplers Series KK/KKH/KKA



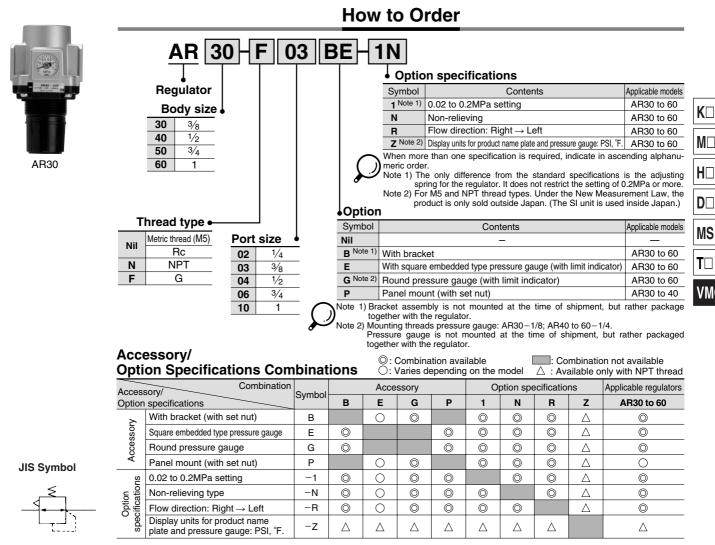




15-7-8



Related Products: Regulator Series AR30 to 60



Standard Specifications

Model	AR30	AR40	AR40-06	AR50	AR60		
Port size	1/4 , 3/8	1/4, 3/8, 1/2	3⁄4	³ ⁄4 , 1	1		
Fluid	Air						
Proof pressure		1.5MPa					
Maximum operating pressure	1.0MPa						
Regulating pressure range		0.05 to 0.85MPa					
Gauge port size Note 1)	1⁄8	1/4	1⁄4	1/4	1/4		
Relief pressure	Set pr	essure + 0.05M	Pa (at relief flow	rate of 0.1/min	(ANR))		
Ambient and fluid temperature		-5 to 60°	C (With no cond	lensation)			
Construction	Relieving type 1.22						
Weight (kg)	0.29	0.44	0.47	1.17			

Note 1) The type with square embedded pressure gauge does not have connection threads.

Option/Part No.

Option		Applicable model	AR30	AR40	AR40-06	AR50	AR60
Bracket ass	embly ^N	Note 1)	AR30P-270AS	AR40P-270AS	AR40P-270AS	AR50P-270AS ^{Note 4)}	AR50P-270AS Note 4)
Set nut			AR30P-260S	AR40P-260S	AR40P-260S	Note 5)	_ Note 5)
	1MPa	Round	G36-10-□01	G46-10-□02	G46-10-□02	G46-10-□02	G46-10-□02
Pressure gauge		Square Note 3) embedded type	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS
	0.2MPa	Round	d G36-2-⊡01		G46-2-□02	G46-2-□02	G46-2-□02
	0.211Fa	Square Note 3) embedded type	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS

Note 1) Assembly includes a bracket and set nuts.

Note 2)
in part numbers for a round pressure gauge indicates a type of connection threads. No indication is necess-ary for R; however, indicate and N for NPT. Please contact SMC for regarding the connection thread NPT and pressure gauge supply for PSI unit specifications.

Note 3) Includes one O-ring and 2 mounting screws. Note 4) Assembly includes a bracket and 2 mounting screws.

Note 5) Please contact SMC regarding the set nuts for AR50 and AR60.

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Related Products: Filter Regulator Series AW30/40

					Н	ow	to	0	rde	er									
Integration of a				_	=	1 1	4	•	1										
filter and regu- AW 30 - F	- (06	3	В	Ε		1	Ν											
lator allows sim-		T			_														
ple wiring. Filter					+0	Opti	ion	spe	ecif	icat	ion	s							
regulator					Sy	mbo						Co	nten	ts					Applicable models
					1	Note 1	I) 0.C)2 to	0.21	/IPa s	settin	ıg							AW30/40
Body size					2		Me	etal b	lwoo										AW30/40
30 3/8					6			lon t											AW30/40
40 1/2					8		Metal bowl with level gauge							AW30/40					
																			AW30/40
Thread type	•				N		_		lievir	<u> </u>									AW30/40
Metric thread (M5)	-				R			Flow direction: Right \rightarrow Left Drain cock with barb fitting: $\emptyset 6 \times \emptyset 4$ nylon tube								AW30/40			
Nil Rc	-				W			ain co	DCK W	ith ba	arb fitt	ing: ø	6 X Ø	4 ny	lon t	ube		gauge: PSI, °F	AW30/40 AW30/40
N Note 1) NPT	-				2														
F Note 2) G	-		When more than one specification is required, indicate in ascending a order.												gaipilabelicai				
	- DT1/4	Note 1) The only difference from the standard specifications is the adj spring for the regulator. It does not restrict the setting of 0.2M												adjusting					
Note 1) Drain guide is N (applicable to AW30 ar		Note 2) Without valve function.												wiPa or more.					
and the exhaust port for	r auto	Note 3) For M5 and NPT thread types. Under the New Measurement type is only sold outside Japan. (The SI unit is used inside																	
drain comes with ø3/8' touch fitting (applicat					۸.				e is o	nly so	old ou	itside	Japa	.n. (T	he S	SI uni	t is u	sed inside .	Japan.)
AW40 AW30 and 40).				-			sor	<u>y</u>				Car	tont	_				4.0	aliachla madala
Note 2) Drain guide is	G1/4			-	Sym		-					Cor	ntent	s				Ар	plicable models
Direct operated type,	u 40).				Nil									AW30/40					
Relieving type	t siz				C			With bracket Float type auto-drain (N.C)							AW30/40 AW30/40				
		<u>e</u> -			D		_							AW30/40					
JIS Symbol 02	1/4		_		E		With square embedded type pressure gauge (with limit indicator)						AW30/40						
03	3⁄8	B G Note 2) With round pressure gauge (with limit indicator)								AW30/40									
	1/2	P Panel mount (with set nut)								AW30/40									
	3⁄4										ner packaged								
				.ツ,	Note	2) M	gethe	er wit na th	h the	filter	regul	lator f re gai	or sh		ent. 30—1	1/8.4	AR40	to 60—1/4	
			0			∫ Pr	essu	ire ga	auge	is no	ot mo	unted	at t	he ti					er packaged
Accessory/							_					for sh	ipme						
Option Specifications Combinations											vailal							ation not a	
	-): v	anes	s det							: AVa		-	NPT thread
Accessory/ Combination	Symbol	<u> </u>			ssor		_			- i	·	spec	-						filter regulator
Option specifications		В	C	D	E	G	Ρ	1	2	6	8			N		W	Z		30/40
With bracket (with set nut)	В		\bigcirc	0	0	\bigcirc		0	0	0						0	Δ		<u>0</u>
Float type auto drain (N.C.)	С	0			0	\bigcirc	\bigcirc	0	0	0		0			0		\triangle		0
Float type auto drain (N.C.) Float type auto drain (N.O.) Square embedded type pressure gauge	D	0			\bigcirc	\bigcirc	0	\odot	0	0	0	-			0		\triangle		0
Square embedded type pressure gauge	Е	0	0	\bigcirc			\bigcirc	\odot	\bigcirc	\bigcirc						0	\triangle		0
Tiound pressure gauge	G	0	0	0			\bigcirc	\odot	\bigcirc	\bigcirc						0	Δ		0
Panel mount (with set nut)	Р		\bigcirc	0	0	\bigcirc		\bigcirc	\odot	\odot		0				0	\triangle		0
0.02 to 0.2MPa setting	-1	\bigcirc	\odot	0	0	\odot	\odot		\odot	\odot	0	0				0	\triangle		0
Metal bowl	-2	\bigcirc	\bigcirc	0	0	\bigcirc	\bigcirc	\bigcirc							\odot		\triangle		0
S Nylon bowl	-6	\bigcirc	\bigcirc	Ο	0	\bigcirc	\odot	\bigcirc				0	С	0	\odot	0	\triangle		0
Metal bowl with level gauge	-8	0	\odot	\bigcirc	\odot	\bigcirc	\bigcirc	\bigcirc				(0	0	0		Δ		0
With bowl guard	-C	0	0		\odot	\bigcirc	0	\bigcirc		0					0		\triangle		
g Metal bowl with level gauge With bowl guard Drain guide 1⁄4	–J	0			\odot	\bigcirc	\odot	\odot	0	0	0			_	0		\triangle		0
	-N	0	0	0	Õ	Ô	Ô	Ô	0	0		0	D		_	0	$\overline{\Delta}$		0
	-R	Õ	Õ	Õ	Õ	Ô	Õ	Ô	Õ	Ô				0		Õ	$\overline{\Delta}$		0
O Drain cock with barb fitting: ø6 x ø4 nylon tubing	-w	Õ		-	Õ	Õ	Ô	Õ		Õ	-	-			\odot	-	$\overline{\Delta}$		0
Display units for product name plate, caution plate for bowl, and pressure gauge: PSI, °F	-Z	\square	Δ	\triangle	\triangle	\triangle	\triangle	\triangle	\triangle	\triangle	\triangle	\triangle		_	$\overline{\Delta}$	\triangle			$\overline{\Delta}$
Standard Specifications			CC					· · · · ·											

Model AW30 AW40 AW40-06 Port size 1/4, 3/8, 1/2 3/4 1/4, 3/8 Fluid Air Proof pressure 1.5MPa Maximum operating pressure 1.0MPa 0.05 to 0.85MPa Regulating pressure range Pressure gauge port size Note 1) 1⁄8 1/4 1/4 Set pressure + 0.05MPa (at relief flow rate of 0.1/min(ANR)) Relief pressure Ambient and fluid temperature -5 to 60°C (With no condensation) Nominal filtration rating 5µm Drain capacity (cm3) 25 45 45 Bowl material Polycarbonate Construction Relieving type Weight (kg) 0.40 0.72 0.75 Option Bowl guard •

Note 1) The type with square embedded pressure gauge does not have connection threads.

∕∕∕ SMC

Accessory		Applicable model	AW30	AW40	AW40-06			
Bracket ass	embly ^{No}	te 1)	AR30P-270AS	AR40P-270AS	AR40P-270AS			
Set nut			AR30P-260S	AR40P-260S	AR40P-260S			
Note 2) Pressure gauge	1.0MPa	Round	G36-10-□01	G46-10-□02	G46-10-□02			
	1.0MPa	Square Note 3) embedded type	GC3-10AS	GC3-10AS	GC3-10AS			
	0.2MPa	Round	G36-2-□01	G46-2-□02	G46-2-□02			
	0.2117	Square Note 3) embedded type	GC3-2AS	GC3-2AS	GC3-2AS			
Float type	Note 4)	N.O.	AD38	AD48	AD48			
auto-drain		N.C.	AD37	AD47	AD47			

Note 1) Assembly includes a bracket and set nuts. Note 2)
in part numbers of the round pressure gauge indicates a type of connection Note 2) In the attributes of the found pressure gauge indicates a type of connection thread. No indication is necessary for R; however, indicate N for NPT. Please contact SMC regarding the connection thread NPT and supply of the pressure gauge for PSI unit specifications. Note 3) Includes one O-ring and 2 mounting screws.

Note 4) Minimum operating pressure: N.O. type—0.1MPa; N.C. type—0.1MPa AD17, AD27 and 0.15MPa for AD37, AD47. Please contact SMC regarding the specifications for PSI unit and °F.

Series VMG

Specific Product Precautions 1

Be sure to read before handling.

Selection

Warning

1. Confirm 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.

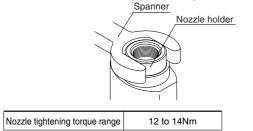
≜Caution

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

A 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 seal tape around the threads of the nozzle.
- 3. When installing the nozzle, secure the nozzle holder of the blow gun by applying a spanner 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 following torque ranges. As a guideline, it is equivalent to 2 to 3 additional turns with a tool after manual tightening.



Insufficient tightening may cause loosening of the nozzle.

Piping

▲Caution

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

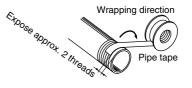
Also make sure that there is no scratches, gouges or cracks on the product.

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.

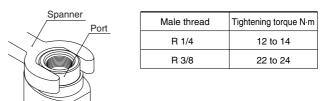
3. Wrapping of pipe tape

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



4. When installing the nozzle, secure the nozzle holder of the blow gun by applying a spanner 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 using a tool after manual tightening.

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



- 5. Allow extra length when connecting the tube to accommodate changes in tube length due to pressure.
- 6. Make sure that no twisting, turning or tensile force or moment load is applied to the port or tube. It may cause the fittings to fracture or the tubing to crush, explode or come loose.
- 7. Do not abrade, entangle or scratch the tubing. It may cause the tubing to crush, explode or come loose.

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VMG

Series VMG Specific Product Precautions 2

Be sure to read before handling.

Lubrication

A Warning

1. Do not lubricate the product.

It may contaminate or damage the target object.

Air Supply

A 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.

▲Caution

1. Install air filters.

Install air filters at the upstream side of blow gun. The filtration degree should be $5\mu m$ or finer.

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

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

Operating Environment

A 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 consult with 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, lubricant oil or coolant oil. Please contact SMC for use in an environment where the product is exposed to such liquid as cutting oil, lubricant oil or coolant oil.

Maintenance

ACaution

- 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 the nozzle
- 2. When removing the product, first stop the pressure supply, exhaust compressed air in the piping and confirm 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. Be 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.