

Nozzles for Blowing

KN Series

RoHS

Specifications

Nozzle (KN, KNK, KNH, KNS, KNL)

Applicable tubing material	Nylon, Soft nylon, Flexible copper pipe (C1220T-O), OST pipe	
Applicable tubing O.D.	ø4, ø6, ø8, ø10, ø12, ø16, ø20	
Fluid	Air, Coolant*1	
Max. operating pressure	1 MPa (0.3 MPa with OST pipe)	
Ambient and fluid temperatures	-5 to 60°C (No freezing)	
Threads	Mounting	JIS B 0203 (Taper threads for piping)
	Nut	JIS B 0205 (Metric fine thread)
Seal on the threads	None	
Copper-free (Standard)	Brass parts are all electroless nickel plated.	

*1 Excludes the KNS and KN-Q□A

Principal Parts Material

KN, KNK, KNH, KNS

Body, Nut	C3604
Sleeve (Self-align fitting type)	C2700
Nozzle (Pivoting type)	Stainless steel 303

KN-Q□A

Nozzle	POM
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KNL

Pipe	C1220T-0
Nozzle	C3604

KNC*1, *2

Body, Seat ring, Needle	C3604
Nozzle with scale, Lock nut	A2017
O-ring	NBR

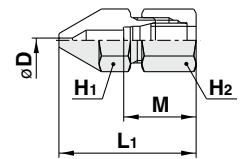
*1 The KNC is not allowed for coolant liquid.

*2 Copper-free specification: Excludes the KNC

Nozzle with self-align fitting/KN

[mm]

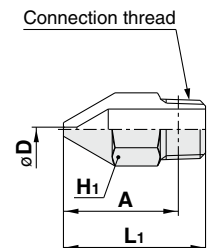
Model	Nozzle dia. øD	Applicable tubing O.D.	Width across flats		L ₁	M	Weight [g]
			H ₁	H ₂			
KN-04-100	ø1	ø4	10	10	27	15	13
KN-04-150	ø1.5	ø4	10	10	27.7	15	14
KN-06-100	ø1	ø6	12	12	30.1	16	19
KN-06-150	ø1.5	ø6	12	12	30.8	16	20
KN-06-200	ø2	ø6	12	12	31.5	16	22
KN-08-150	ø1.5	ø8	14	14	33.8	16	28
KN-08-200	ø2	ø8	14	14	34.6	16	30
KN-10-250	ø2.5	ø10	14	17	35.6	17	35
KN-10-300	ø3	ø10	14	17	36.3	17	36
KN-10-350	ø3.5	ø10	14	17	37.1	17	37
KN-10-400	ø4	ø10	14	17	29.5	17	30
KN-10-600	ø6	ø10	14	17	27.7	17	28
KN-12-350	ø3.5	ø12	17	19	40.4	17	54
KN-12-400	ø4	ø12	17	19	41.3	17	55
KN-12-600	ø6	ø12	17	19	31.2	17	40
KN-16-400	ø4	ø16	22	24	40.1	17	77
KN-16-600	ø6	ø16	22	24	38.4	17	79
KN-20-400	ø4	ø20	26	27	45.6	17	117
KN-20-600	ø6	ø20	26	27	43.9	17	112



Nozzle with male thread/KN

[mm]

Model	Nozzle dia. øD	Connection thread	Width across flats	L ₁	A*1	Weight [g]
			H ₁			
KN-R01-100	ø1	R1/8	10	21.4	17.4	8
KN-R01-150	ø1.5	R1/8	10	21	17	8
KN-R02-100	ø1	R1/4	14	31.4	25.4	19
KN-R02-150	ø1.5	R1/4	14	31	25	20
KN-R02-200	ø2	R1/4	14	30.5	24.5	21
KN-R02-250	ø2.5	R1/4	14	30.1	24.1	21
KN-R02-600	ø6	R1/4	14	27.1	21.1	22
KN-R03-400	ø4	R3/8	17	31.8	25.4	36
KN-R03-600	ø6	R3/8	17	30.1	23.7	37
KN-R04-400	ø4	R1/2	22	41.8	33.6	75
KN-R04-600	ø6	R1/2	22	40.1	31.8	76
KN-R06-600	ø6	R3/4	27	49.6	40.1	149
KN-R06-800	ø8	R3/4	27	47.8	38	152
KN-R10-800	ø8	R1	36	62.8	52.4	328

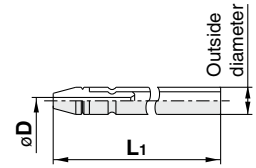


*1 Reference dimensions after R thread installation

Copper extension nozzle/KNL

[mm]

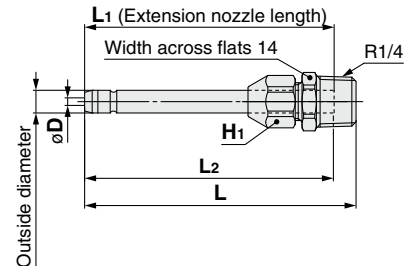
Model	Nozzle dia. øD	Outside diameter	L ₁	Weight [g]
KNL3-06-150	ø1.5	ø6	300	43
KNL3-06-200	ø2	ø6	300	43
KNL3-08-200	ø2	ø8	300	61
KNL3-08-250	ø2.5	ø8	300	61
KNL3-10-250	ø2.5	ø10	300	94
KNL3-10-300	ø3	ø10	300	94
KNL6-06-150	ø1.5	ø6	600	84
KNL6-06-200	ø2	ø6	600	84
KNL6-08-200	ø2	ø8	600	117
KNL6-08-250	ø2.5	ø8	600	117
KNL6-10-250	ø2.5	ø10	600	183
KNL6-10-300	ø3	ø10	600	183



Copper extension nozzle set/VMG

[mm]

Model	Nozzle dia. D	Outside diameter	L ₁	L ₂ *1	L*1	Width across flats H ₁
VMG1-06-150-100	ø1.5	ø6	100	100	106	12
VMG1-06-200-100	ø2		100	100	106	
VMG1-06-150-150	ø1.5		150	150	156	
VMG1-06-200-150	ø2		150	150	156	
VMG1-06-150-300	ø1.5		300	300	306	
VMG1-06-200-300	ø2		300	300	306	
VMG1-06-150-600	ø1.5	ø8	600	600	606	14
VMG1-06-200-600	ø2		600	600	606	
VMG1-08-250-100	ø2.5		100	100	106	
VMG1-08-300-100	ø3		100	100	106	
VMG1-08-350-100	ø3.5		100	100	106	
VMG1-08-250-150	ø2.5		150	150	156	
VMG1-08-300-150	ø3		150	150	156	
VMG1-08-350-150	ø3.5		150	150	156	
VMG1-08-250-300	ø2.5	ø10	300	300	306	16
VMG1-08-300-300	ø3		300	300	306	
VMG1-08-350-300	ø3.5		300	300	306	
VMG1-08-250-600	ø2.5		600	600	606	
VMG1-08-300-600	ø3		600	600	606	
VMG1-08-350-600	ø3.5		600	600	606	



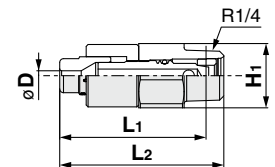
*1 Reference dimensions after installation
* Copper extension nozzle and self-align fitting are included in the same package but do not come assembled. Refer to "How to attach extension nozzle" in the VMG series operation manual for assembly procedures.



Nozzle with flow rate adjustment function/KNC

[mm]

Model	Nozzle dia. øD	Width across flats H ₁	L ₁	L ₂	Weight [g]
KNC-R02-200	ø2.6	17	38.7 (Max. 41.2)	43.4 (Max. 45.9)	42.4



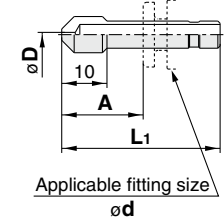
* Please refer to the operation manual for the specific product precautions.



Nozzle for One-touch fitting (Resin type)/KN-Q□A

[mm]

Model	Nozzle dia. øD	Applicable fitting size ød	L ₁	A*1	Weight [g]
KN-Q06A-100	ø1	ø6	35	21.8	1
KN-Q06A-150	ø1.5	ø6	35	21.8	1
KN-Q06A-200	ø2	ø6	35	21.8	1
KN-Q08A-150	ø1.5	ø8	39	24.8	2
KN-Q08A-200	ø2	ø8	39	24.8	2
KN-Q10A-200	ø2	ø10	43	27.4	3
KN-Q10A-250	ø2.5	ø10	43	27.4	3
KN-Q12A-250	ø2.5	ø12	45.5	28.5	4
KN-Q12A-300	ø3	ø12	45.5	28.5	4



*1 Dimensions shown are for nozzle connected to the KQ2 series.



⚠Warning [Mounting / Piping] Applicable nozzle: Nozzle for One-touch fitting (Resin/Metal type)
When connecting the nozzle to the One-touch fitting, insert it securely until it cannot move any further. After setting the nozzle deep into the fitting, be sure to pull on the nozzle to confirm that it is firm and does not budge. If the nozzle is not secured all the way at the back of the fitting or if there is insufficient engagement with the One-touch fitting, the nozzle may dislodge during pressurization, which is dangerous and may result in injury or accident.

KN Series

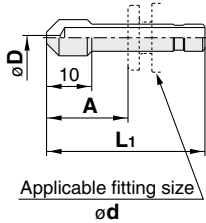
Nozzle for One-touch fitting (Metal type)/KN-Q□

[mm]



Air

Model	Nozzle dia. øD	Applicable fitting size ød	L ₁	A	Weight [g]
KN-Q06-100	ø1	ø6	35	18	5
KN-Q06-150	ø1.5	ø6	35	18	5
KN-Q06-200	ø2	ø6	35	18	5
KN-Q08-150	ø1.5	ø8	39	20.5	9
KN-Q08-200	ø2	ø8	39	20.5	9
KN-Q10-200	ø2	ø10	43	22	16
KN-Q10-250	ø2.5	ø10	43	22	16
KN-Q12-250	ø2.5	ø12	45.5	24	23
KN-Q12-300	ø3	ø12	45.5	24	23



Connecting products with metal rods
 Products with metal rods cannot be connected to the KQ2 series One-touch fittings (Available as a special order). If connected, the metal rod cannot be retained by the chuck of the One-touch fitting and products with metal rods may project during pressurization, causing serious personal injury or accident. For details about One-touch fittings that can connect products with metal rods, contact SMC.

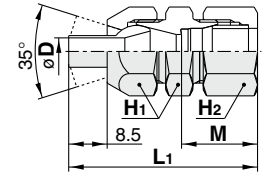
KN Series

Pivoting nozzle with self-align fitting/KNK

[mm]



Model	Nozzle dia. øD	Applicable tubing O.D.	Width across flats		L ₁	M	Weight [g]
			H ₁	H ₂			
KNK-10-400	ø4	ø10	17	17	41.7	17	44
KNK-10-600	ø6	ø10	17	17	41.7	17	44
KNK-12-400	ø4	ø12	17	19	41.2	17	44
KNK-12-600	ø6	ø12	17	19	41.2	17	44
KNK-16-400	ø4	ø16	17	24	41.8	17	64
KNK-16-600	ø6	ø16	17	24	41.8	17	64
KNK-20-400	ø4	ø20	17	27	43.8	17	77
KNK-20-600	ø6	ø20	17	27	43.8	17	77



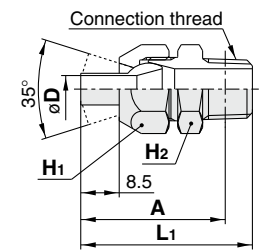
Pivoting nozzle with male thread/KNK

[mm]



Model	Nozzle dia. øD	Connection thread	Width across flats		L ₁	A*1	Weight [g]
			H ₁	H ₂			
KNK-R02-400	ø4	R1/4	17	17	38	31.9	32
KNK-R02-600	ø6	R1/4	17	17	38	31.9	32
KNK-R03-400	ø4	R3/8	17	17	39	32.4	40
KNK-R03-600	ø6	R3/8	17	17	39	32.4	40
KNK-R04-400	ø4	R1/2	17	22	42.2	34.1	54
KNK-R04-600	ø6	R1/2	17	22	42.2	34.1	54

*1 Reference dimensions after R thread installation



High efficiency nozzle/KNH (OSHA compliant: Operate at 0.5 MPa or less.)

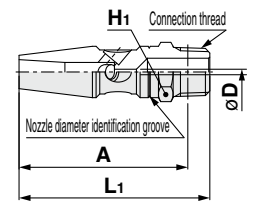
[mm]

Amplifies the air blow flow rate (When operated at 0.5 MPa: amplifies by 2 to 3 times)



Model	Nozzle dia. øD	Connection thread	Width across flats	L ₁	A*1	Weight [g]	Nozzle diameter identification groove
			H ₁				
KNH-R02-100	ø1	R1/4	14	52	46	38	—
KNH-R02-150	ø1.5	R1/4	14	52	46	38	1 pc.
KNH-R02-200	ø2	R1/4	14	52	46	38	2 pcs.

*1 Reference dimensions after R thread installation

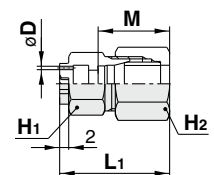


Low noise nozzle with self-align fitting/KNS

[mm]



Model	Nozzle dia. øD	Applicable tubing O.D.	Width across flats		L ₁	M	Weight [g]
			H ₁	H ₂			
KNS-08-075-4	ø0.75 x 4	ø8	12	14	24.3	16	17
KNS-08-100-4	ø1 x 4	ø8	12	14	24.3	16	17
KNS-10-075-4	ø0.75 x 4	ø10	14	17	24	17	24
KNS-10-090-8	ø0.9 x 8	ø10	14	17	24	17	24
KNS-10-100-4	ø1 x 4	ø10	14	17	24	17	24



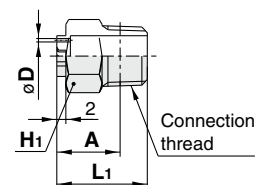
Low noise nozzle with male thread/KNS

[mm]



Model	Nozzle dia. øD	Connection thread	Width across flats	L ₁	A*1	Weight [g]
			H ₁			
KNS-R01-075-4	ø0.75 x 4	R1/8	12	18	14	9
KNS-R01-100-4	ø1 x 4	R1/8	12	18	14	9
KNS-R01-090-8	ø0.9 x 8	R1/8	12	18	14	9
KNS-R02-075-4	ø0.75 x 4	R1/4	14	20	14	13
KNS-R02-090-8	ø0.9 x 8	R1/4	14	20	14	13
KNS-R02-100-4	ø1 x 4	R1/4	14	20	14	13
KNS-R02-110-8	ø1.1 x 8	R1/4	14	20	14	13

*1 Reference dimensions after R thread installation



Made to Order
(For details, refer to pages 13 to 15.)

Description	
Blower Nozzle	p. 13
Bender Tube	p. 14
Stainless Steel Nozzles	p. 15

Sensing Heads

Specifications

Sensing head (KNP)

Applicable tubing O.D.	ø4
Fluid	Air
Max. operating pressure (at 20°C)	0.8 MPa
Ambient and fluid temperatures	-5 to 60°C (No freezing)

Principal Parts Material

KNP-1

Pressure spindle	Stainless steel 303
One-touch fitting	POM, NBR, Stainless steel 303, Stainless steel 304
Polyurethane tube (ø4, 1 m)	Polyurethane

KNP-2

Pipe	Stainless steel 304
One-touch fitting	POM, NBR, Stainless steel 304
Polyurethane tube (ø4, 1 m)	Polyurethane

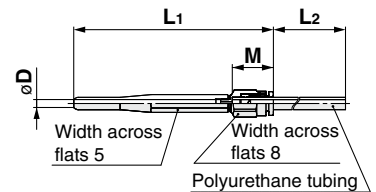
Standard sensing head/KNP

[mm]



Model	Nozzle dia. øD	Applicable tubing O.D.	Width across flats		M	L ₁	L ₂	Weight [g]
			H ₁	H ₂				
KNP-1	ø2.5	ø4	5	8	13.3	64.6	986.7	7

* A 1 m polyurethane tube is included.



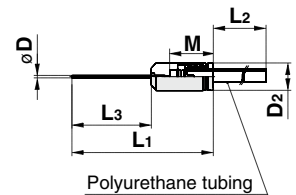
Needle sensing head/KNP

[mm]

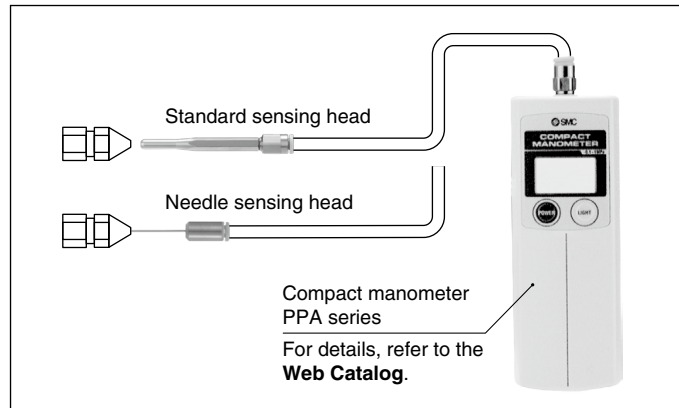


Model	Nozzle dia. øD	Applicable tubing O.D.	D ₂	M	L ₁	L ₂	L ₃	Weight [g]
KNP-2	ø0.7	ø4	ø8	12.7	41	987.3	23	4

* A 1 m polyurethane tube is included.



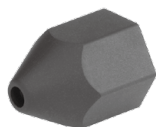
Use to measure workpiece impact pressure.



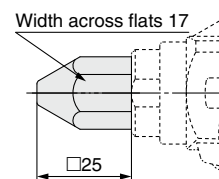
Nozzle Covers

Cover for male thread nozzle

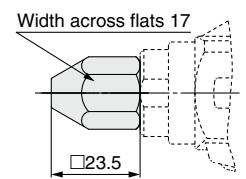
[mm]



Nozzle cover model	Material	Applicable blow gun model	
		Model	Nozzle type
P5670129-01	HNBR	VMG1□□-□01 to 04	Male thread nozzle ø1 to ø2.5
P5670129-01F	Fluororubber		
P5670129-02	HNBR	VMG1□□-□05 to 07	Male thread nozzle ø3 to ø4
P5670129-02F	Fluororubber		



VMG1□□-□01 to 04



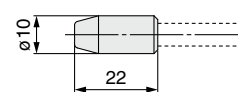
VMG1□□-□05 to 07

Cover for copper extension nozzle

[mm]



Nozzle cover model	Material	Applicable blow gun model	
		Model	Nozzle type
P5670129-11	HNBR	VMG1□□-□31 to 38	ø6 copper extension nozzle
P5670129-11F	Fluororubber		



VMG1□□-□31 to 38