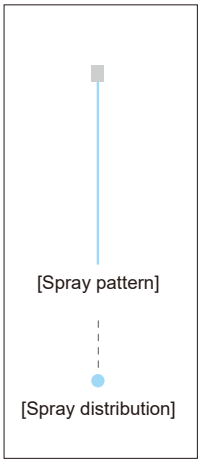
Paper Trimming Nozzles

Some Models are Made-to-Order

CMP-T/CM/CTM

CMP-T



- Extra fine straight solid stream nozzles with high impact cutting force.

[STANDARD PRESSURE]
1.0 MPa

[APPLICATIONS]
Trimming: Paper making
Others: Cleaning of precision machine parts, injection of chemicals, deburring

CMP-T SERIES (with alumina ceramic orifice)

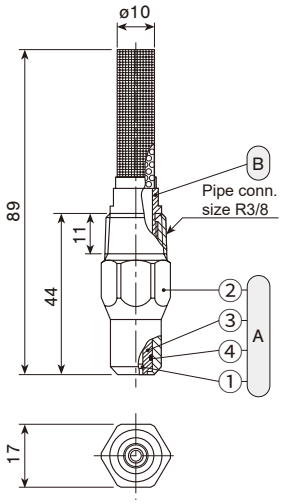
Structure	• Features a high-purity ceramic orifice. Polyamide sleeve molded around a ceramic orifice is pressed into the tip of the nozzle. • Includes a nozzle and a strainer. Worn-out nozzles can be replaced separately. • The sleeve of the CMP-T series is color-coded by orifice diameter (see table on p.102).
Material	• Nozzle orifice: alumina ceramic • Sleeve: PA • Metal parts: S303 • O-ring: NBR
Weight	• Complete assembly: 47 g • Nozzle only: 40 g

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

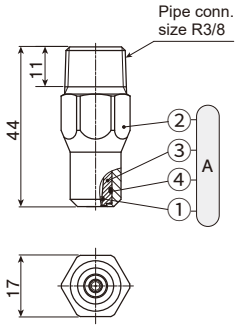
DRAWING

Unit: mm

Complete Assembly



Nozzle Only



Ⓐ **Nozzle** (①Alumina ceramic orifice ②Nozzle body ③Sleeve ④O-ring [NBR])
Ⓑ **Strainer**

CM SERIES (with ceramic orifice)

Structure	• Features a ceramic orifice. • Includes a nozzle and a strainer integrated with an adaptor. Worn-out nozzles can be replaced separately.
Material	• Nozzle orifice: ceramic • Metal parts: S303

[Complete Assembly]

Orifice diameter code	Pipe conn size	Dimensions (mm)						Weight (g)
		L2	L3	H1	H2	øD	N2	
ø0.1–ø0.9	R3/8	54	92	10	17	10	11	39
ø1.0–ø1.5	R3/8	52	90	14	17	10	11	47

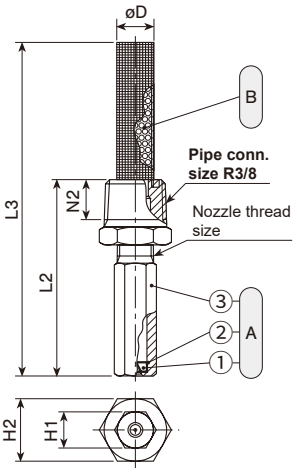
[Nozzle Only]

Orifice diameter code	Nozzle thread size	Dimensions (mm)			Weight (g)
		L1	H1	N1	
ø0.1–ø0.9	R1/8	40	10	7	16.5
ø1.0–ø1.5	R1/4	40	14	10.5	30

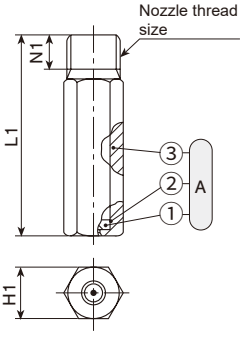
[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

DRAWING

Complete Assembly



Nozzle Only



Ⓐ **Nozzle** (①Ceramic orifice ②Adhesive: Araldite® ③Nozzle body)
Ⓑ **Strainer**

CTM SERIES (with tungsten carbide orifice)

Structure	• Features a tungsten carbide orifice. • Includes a nozzle and a strainer integrated with an adaptor. Worn-out nozzles can be replaced separately.
Material	• Nozzle orifice: tungsten carbide • Metal parts: S303

[Complete Assembly]

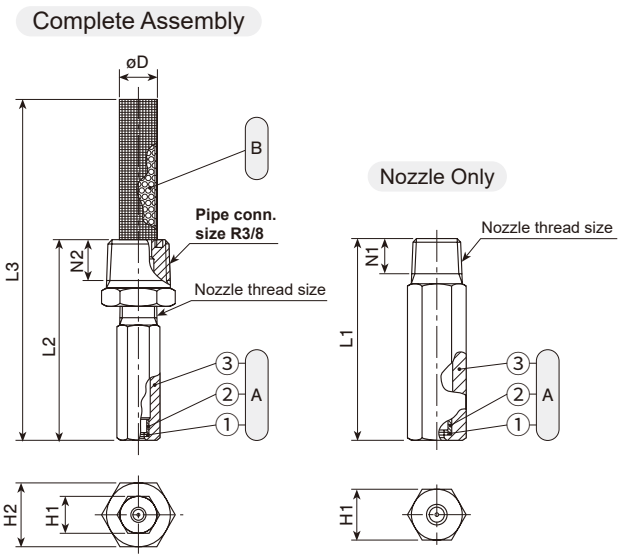
Orifice diameter code	Pipe conn size	Dimensions (mm)						Weight (g)
		L2	L3	H1	H2	øD	N2	
ø0.2–ø0.9	R3/8	54	92	10	17	10	11	39
ø1.0–ø1.5	R3/8	52	90	14	17	10	11	47

[Nozzle Only]

Orifice diameter code	Nozzle thread size	Dimensions (mm)			Weight (g)
		L1	H1	N1	
ø0.2–ø0.9	R1/8	40	10	7	16.5
ø1.0–ø1.5	R1/4	40	14	10.5	30

[Note] Appearance and dimensions may differ slightly depending on material and nozzle code.

DRAWING



Ⓐ **Nozzle** (①Tungsten carbide orifice ②Sleeve ③Nozzle body)
Ⓑ **Strainer**

CMP-T, CM SERIES

Orifice diameter code	CMP-T*2	CM	Spray capacity (L/min)						Strainer mesh size
			0.5 MPa	1 MPa	2 MPa	3 MPa	4 MPa	5 MPa	
ø0.1		●*1	0.010	0.014	0.019	0.024	0.027	0.03	200
ø0.15		●*1	0.02	0.03	0.04	0.05	0.06	0.07	200
ø0.2		●*1	0.04	0.05	0.08	0.09	0.11	0.12	200
ø0.25		●*1	0.06	0.09	0.12	0.15	0.17	0.19	200
ø0.3	●	●	0.09	0.12	0.17	0.21	0.25	0.27	150
ø0.4	●	●	0.15	0.22	0.31	0.38	0.44	0.49	150
ø0.5	●	●	0.25	0.35	0.49	0.60	0.68	0.76	80
ø0.6	●	●	0.36	0.51	0.71	0.86	0.99	1.10	80
ø0.7	●	●	0.49	0.69	0.96	1.17	1.34	1.49	50
ø0.8	●	●	0.62	0.87	1.23	1.51	1.75	1.95	50
ø0.9	●	●	0.78	1.10	1.56	1.91	2.21	2.47	50
ø1.0	●	●*1	0.96	1.36	1.93	2.36	2.73	3.05	50
ø1.1		●*1	1.17	1.65	2.33	2.86	3.30	3.69	50
ø1.2		●*1	1.39	1.96	2.78	3.40	3.93	4.39	50
ø1.3		●*1	1.63	2.30	3.26	3.99	4.61	5.15	50
ø1.4		●*1	1.89	2.67	3.78	4.63	5.34	5.98	50
ø1.5		●*1	2.17	3.07	4.34	5.31	6.14	6.86	50

*1) Made-to-order model *2) The color of ● (filled circle) in the CMP-T series indicates the sleeve color coded by orifice diameter.
[Note] The above nozzles are manufactured for specific orifice diameters, therefore the spray capacity is not guaranteed.

CTM SERIES

Orifice diameter code	CTM	Spray capacity (L/min)						Strainer mesh size
		0.5 MPa	1 MPa	2 MPa	3 MPa	4 MPa	5 MPa	
ø0.2	●*1	0.04	0.05	0.07	0.09	0.10	0.12	200
ø0.25	●*1	0.06	0.08	0.11	0.14	0.16	0.18	200
ø0.3	●	0.08	0.12	0.16	0.20	0.23	0.26	150
ø0.4	●	0.15	0.21	0.29	0.36	0.41	0.46	150
ø0.5	●	0.23	0.32	0.46	0.56	0.64	0.72	80
ø0.6	●	0.33	0.46	0.66	0.80	0.93	1.04	80
ø0.7	●	0.45	0.63	0.89	1.09	1.26	1.41	50
ø0.8	●	0.58	0.82	1.16	1.43	1.65	1.84	50
ø0.9	●	0.74	1.04	1.47	1.81	2.08	2.33	50
ø1.0	●*1	0.91	1.29	1.82	2.23	2.57	2.88	50
ø1.1	●*1	1.10	1.56	2.20	2.70	3.11	3.48	50
ø1.2	●*1	1.31	1.85	2.62	3.21	3.71	4.14	50
ø1.3	●*1	1.54	2.18	3.08	3.77	4.35	4.86	50
ø1.4	●*1	1.78	2.52	3.57	4.37	5.05	5.64	50
ø1.5	●*1	2.05	2.90	4.10	5.02	5.79	6.48	50

*1) Made-to-order model
[Note] The above nozzles are manufactured for specific orifice diameters, therefore the spray capacity is not guaranteed.

HOW TO ORDER

To inquire about or order a specific nozzle please refer to this coding system.

CMP-T

①Complete Assembly (Nozzle and Strainer)

Example: 3/8M CMP ø0.3 T S303 W

3/8M	CMP	ø0.3	T	S303	W
Pipe conn. size*3		Orifice diameter code ø0.3 ∫ ø1.0		Material	Strainer

②Nozzle Only

Example: 3/8M CMP ø0.3 T S303

3/8M	CMP	ø0.3	T S303
Pipe conn. size*3		Orifice diameter code ø0.3 ∫ ø1.0	Material

CM

①Complete Assembly (Nozzle and Strainer)

Example: 3/8M CM ø0.1 S303 W (PM-Strainer ø10)

3/8M	CM	ø0.1	S303	W (PM-Strainer ø10)
Pipe conn. size*3	Series	Orifice diameter code*4 ø0.1 ∫ ø1.5	Material	Strainer

②Nozzle Only

Example: 1/8M CMP ø0.1 S303

1/8M	CMP	ø0.1	S303
Nozzle thread size*3 1/8M (for ø0.1–ø0.9) 1/4M (for ø1.0–ø1.5)	Series	Orifice diameter code*4 ø0.1 ∫ ø1.5	Material

CTM

①Complete Assembly (Nozzle and Strainer)

Example: 3/8M CTM ø0.2 S303 W (PM-Strainer ø10)

3/8M	CTM	ø0.2	S303	W (PM-Strainer ø10)
Pipe conn. size*3	Series	Orifice diameter code*4 ø0.2 ∫ ø1.5	Material	Strainer

②Nozzle Only

Example: 1/8M CTMP ø0.2 S303

1/8M	CTMP	ø0.2	S303
Nozzle thread size*3 1/8M (for ø0.2–ø0.9) 1/4M (for ø1.0–ø1.5)	Series	Orifice diameter code*4 ø0.2 ∫ ø1.5	Material

*3) "M" indicates male thread ("R" of the ISO standard), e.g. 3/8M = R3/8.
*4) The CTM/CM series with orifice diameters of ø0.1–0.25 and ø1.0–1.5 are made-to-order. ø0.1 and ø0.15 are available only for the CM series.