

# Solution for Stable Etching PCB and TAB

## JJP series Full Cone Spray Nozzles for Etching



### Uniform distribution at low pressure

Produces uniform distribution even at ultra-low spray pressure of 0.07–0.1 MPa.

### Clog-resistant structure

Spiral-shaped whirler of unique design minimizes clogging and help spray distribution remain uniform.

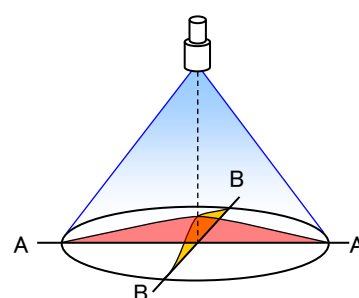
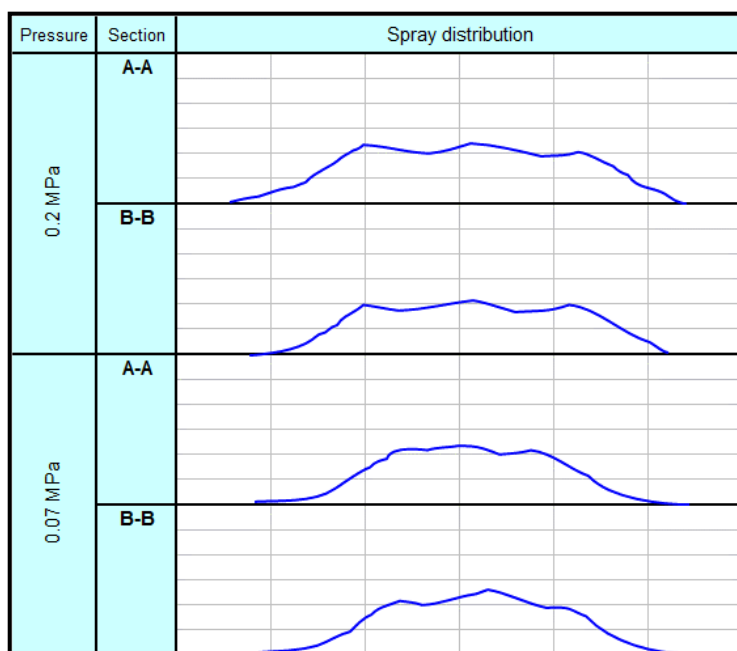
### Stable small flow rate spray

Capable of stable atomization despite small spray capacity.



[Spiral-shaped whirler]  
(equipped in the nozzle)

## Uniform and stable spray distribution even at ultra-low pressure!



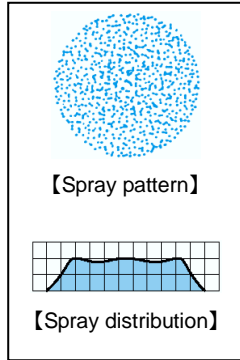
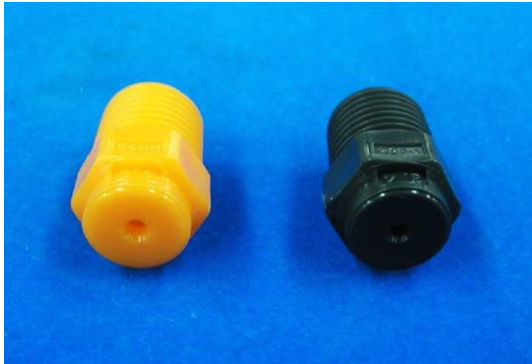
Spray distribution measured at each cross section



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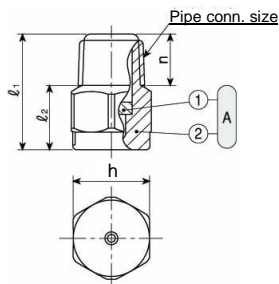
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- Made of chemical-resistant PP (polypropylene).
- Precision guarantee— spray capacities within +/- 5% and spray angles +/- 5° guaranteed
- Nozzles are color-coded by spray capacity for easy identification.

### ■Drawing



Nozzle (①Whirler ②Body)

### ■Material

PP (polypropylene)

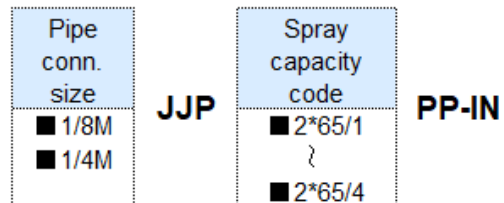
Pipe conn. size	Dimensions (mm)				Mass (g)
	L1	L2	h	n	
R1/8	18	10	12	8	2
R1/4	22	10.5	14	11.5	4.1

Spray capacity code	Pipe conn. size		Spray angle (°)			Spray capacity (L/min)						Mean droplet diameter (μm)	Free passage diameter (mm)	Color of nozzle body		
	R1/8	R1/4	0.05 MPa	0.2 MPa	0.5 MPa	0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa				0.7 MPa	
2*65/1	○	○	54	65	70	0.53	0.73	0.88	1.00	1.19	1.48	1.70	290	0.6	Red	
2*65/1.6	○	○	54	65	70	0.84	1.17	1.41	1.60	1.90	2.37	2.72		430	0.9	Gray
2*65/2.4	○	○	54	65	70	1.26	1.75	2.11	2.40	2.86	3.55	4.08			1.1	Black
2*65/4	—	○	54	65	70	2.11	2.91	3.50	4.00	4.75	5.91	6.82			1.2	Orange

### ■How to order

Please inquire or order for a specific nozzle using this coding system.

<Example> 1/8M JJP 2\*65/1 PP-IN



Note: "M" indicates male thread ("R" of the ISO standard) and "F" indicates female thread ("Rc" of the ISO standard), e.g. 1/4M = Rc1/4.

For details or inquiries please feel free to contact a sales office or mail us at [overseas@kirinoikeuchi.co.jp](mailto:overseas@kirinoikeuchi.co.jp).



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H. IKEUCHI & CO., LTD.

### Headquarters

Daiichi Kyogyo Bldg., 1-15-15, Awaza, Nishi-ku, Osaka 550-0011, Japan

Tel: 81-6-6538-4015 Fax: 81-6-6538-4022

Email: [overseas@kirinoikeuchi.co.jp](mailto:overseas@kirinoikeuchi.co.jp) URL: <http://www.kirinoikeuchi.co.jp/eng/>

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