"The Fog Engineers"
H. IKEUCHI & CO., LTD.
Daiichi Kyogyo Bldg.,1-15-15 Awaza, Nishi-ku,
Osaka 550-0011, Japan
http://www.kirinoikeuchi.co.jp/eng/

Product Discontinuation Notification in VNP Series

March 22, 2023

Dear Valued Customer,

This letter serves as notification that IKEUCHI has decided to discontinue the manufacturing of the VNP (BR) series on May 31, 2023 due to its production line renovation, and starts supplying new VNP (AL99) series on April 1, 2023, which replaces the discontinued series. Please note that the VNP (BR) and the VNP (AL99) belong to the VNP Series.

While the new VNP (AL99) series has the same nozzle performance as the conventional VNP (BR) series as described in the following pages, it is available with shorter lead times.

IKEUCHI always appreciates and values our business relationship and looks forward to your continued interest in our product.

1. Model Numbers Affected

The model numbers boxed in the bold red lines below, VNP (BR) series, will be replaced by newly designed VNP (AL99).

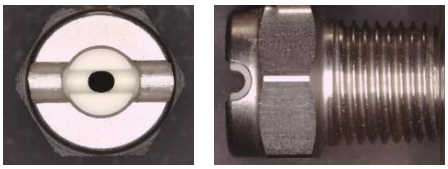
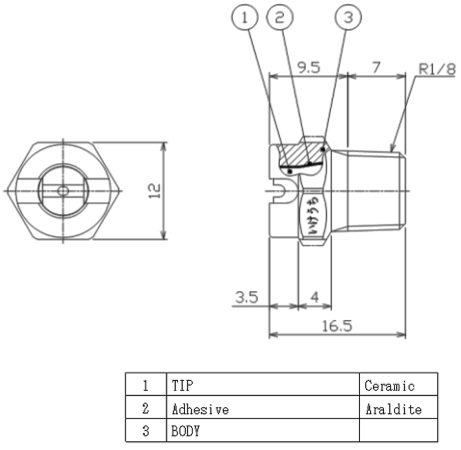
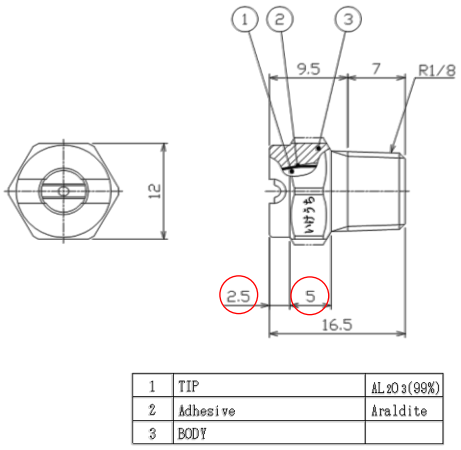
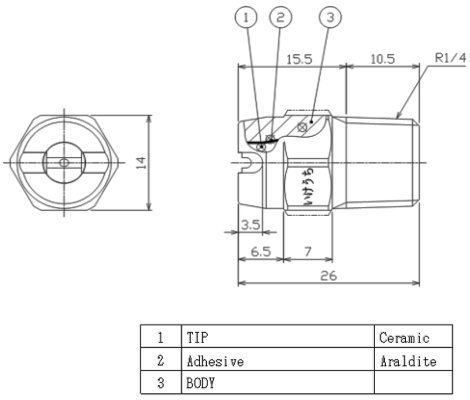
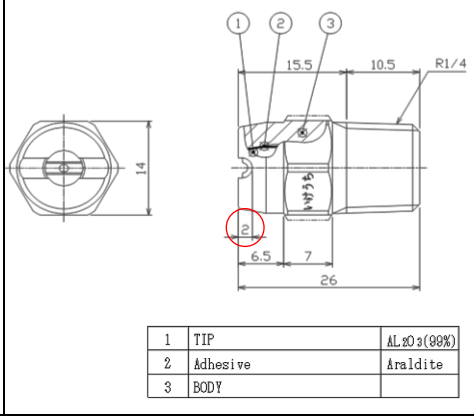
■Table 1: Excerpts from Catalog for VNP Series

Spray angle code	Spray capacity code	Pipe conn. size R1/8	Pipe conn. size R1/4	Spray angle (°) 1 MPa	Spray angle (°) 3 MPa	Spray angle (°) 5 MPa	Spray capacity (L/min) 1 MPa	2 MPa	2.5 MPa	3 MPa	3.5 MPa	4 MPa	4.5 MPa	5 MPa	6.5 MPa	8 MPa	10 MPa	15 MPa	Free pass. dia. (mm)	Free passage diameter (mm) of the new AL99 models (remains the same unless specified below)
25	25	○	○	22	25	25	1.43	2.02	2.25	2.47	2.67	2.85	3.03	3.19	3.64	4.03	4.51	5.52	0.7	
	31	○	○	22	25	25	1.78	2.52	2.82	3.09	3.34	3.57	3.78	3.99	4.55	5.05	5.64	6.91	0.7	
	37	○	○	22	25	25	2.14	3.03	3.39	3.71	4.01	4.28	4.54	4.79	5.46	6.06	6.77	8.30	0.8	
	43	○	○	22	25	25	2.50	3.54	3.96	4.33	4.68	5.00	5.30	5.59	6.37	7.06	7.91	9.67	0.9	
	49	○	○	22	25	25	2.86	4.04	4.52	4.94	5.34	5.71	6.06	6.38	7.28	8.07	9.04	11.1	1.0	
	56	○	○	22	25	25	3.22	4.54	5.08	5.56	6.01	6.42	6.81	7.18	8.19	9.08	10.2	12.4	1.1	→ 1.0
	62	○	○	22	25	25	3.57	5.05	5.65	6.18	6.68	7.14	7.57	7.98	9.10	10.1	11.3	13.8	1.1	
	68	○	○	22	25	25	3.93	5.55	6.21	6.80	7.35	7.85	8.33	8.79	10.0	11.1	12.4	15.2	1.2	
	74	○	○	22	25	25	4.29	6.06	6.78	7.42	8.01	8.56	9.09	9.58	10.9	12.1	13.6	16.6	1.3	1.2
	80	○	○	22	25	25	4.65	6.56	7.35	8.04	8.68	9.28	9.85	10.4	11.8	13.1	14.7	18.0	1.3	1.2
	87	○	○	22	25	25	5.00	7.07	7.91	8.66	9.35	10.0	10.6	11.2	12.8	14.1	15.8	19.4	1.4	→ 1.3
	99	○	○	22	25	25	5.72	8.08	9.04	9.89	10.7	11.4	12.1	12.8	14.6	16.2	18.1	22.1	1.5	1.4
	124	○	○	22	25	25	7.15	10.1	11.3	12.4	13.4	14.3	15.2	16.0	18.2	20.2	22.6	27.7	1.7	1.6
15	25	○	○	12	15	15	1.43	2.02	2.25	2.47	2.67	2.85	3.03	3.19	3.64	4.03	4.51	5.52	0.7	
	31	○	○	12	15	15	1.78	2.52	2.82	3.09	3.34	3.57	3.78	3.99	4.55	5.05	5.64	6.91	0.8	
	37	○	○	12	15	15	2.14	3.03	3.39	3.71	4.01	4.28	4.54	4.79	5.46	6.06	6.77	8.30	0.9	
	43	○	○	12	15	15	2.50	3.54	3.96	4.33	4.68	5.00	5.30	5.59	6.37	7.06	7.91	9.67	1.0	
	49	○	○	12	15	15	2.86	4.04	4.52	4.94	5.34	5.71	6.06	6.38	7.28	8.07	9.04	11.1	1.1	→ 1.0
	56	○	○	12	15	15	3.22	4.54	5.08	5.56	6.01	6.42	6.81	7.18	8.19	9.08	10.2	12.4	1.1	
	62	○	○	12	15	15	3.57	5.05	5.65	6.18	6.68	7.14	7.57	7.98	9.10	10.1	11.3	13.8	1.2	
	68	○	○	12	15	15	3.93	5.55	6.21	6.80	7.35	7.85	8.33	8.79	10.1	11.1	12.4	15.2	1.3	→ 1.2
	74	○	○	12	15	15	4.29	6.06	6.78	7.42	8.01	8.56	9.09	9.58	10.9	12.1	13.6	16.6	1.3	
	80	○	○	12	15	15	4.65	6.56	7.35	8.04	8.68	9.28	9.85	10.4	11.8	13.1	14.7	18.0	1.4	→ 1.3
	87	○	○	12	15	15	5.00	7.07	7.91	8.66	9.35	10.0	10.6	11.2	12.8	14.1	15.8	19.4	1.5	1.4
	93	○	○	12	15	15	5.36	7.58	8.48	9.28	10.0	10.7	11.4	12.0	13.7	15.2	17.0	20.8	1.5	
	99	○	○	12	15	15	5.72	8.08	9.04	9.89	10.7	11.4	12.1	12.8	14.6	16.2	18.1	22.1	1.6	→ 1.5
	111	○	○	12	15	15	6.43	9.09	10.2	11.1	12.0	12.9	13.6	14.4	16.4	18.2	20.3	24.9	1.6	
	124	○	○	12	15	15	7.15	10.1	11.3	12.4	13.4	14.3	15.2	16.0	18.2	20.2	22.6	27.7	1.7	

2. Changes

The changes from VNP (BR) to VNP (AL99) are as follows.

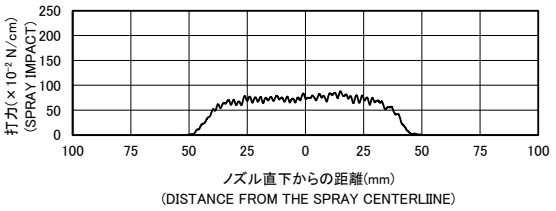
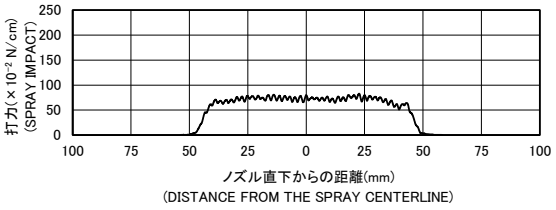
■Table 2: Changes

	Discontinued models 1/8M VNP (BR) , 1/4M VNP (BR)	**New models** **1/8M VNP (AL99), 1/4M VNP (AL99)**
Material of the nozzle tip orifice	High-purity Alumina (AL92%)	High-purity Alumina (AL99%)
Color of the orifice	Black	Yellowish milky white
Product photo		 Photo shows 1/8M VNP (R1/8 size)
Outer dimensions (Unit: mm)	 1 TIP Ceramic 2 Adhesive Araldite 3 BODY	 1 TIP Al2O3(99%) 2 Adhesive Araldite 3 BODY
	 1 TIP Ceramic 2 Adhesive Araldite 3 BODY	 1 TIP Al2O3(99%) 2 Adhesive Araldite 3 BODY
Free passage diameters	Due to the dimensional design changes, the free passage diameters for the VNP (AL99) differ from those for the VNP (BR) in some model numbers. Please see Table 1 on the previous page for the model numbers whose free passage diameters will be changed.	

3. Comparison in Nozzle Performance

As shown below, the nozzle performance of the VNP (AL99) series and the VNP (BR) series is equivalent.

■Table 3: Performance Comparison Between VNP (BR) and VNP (AL99)

Model No.	Spray condition		Spray impact distribution
(Discontinued) 1/8M VNP 2549 BR-S303	Pressure	3 MPa	
	Spray capacity	5.01 L/min	
	Spray angle	25°	
	Spray height	200 mm	
(New) 1/8M VNP 2549 AL99-S303	Pressure	3 MPa	
	Spray capacity	5.02 L/min	
	Spray angle	26°	
	Spray height	200 mm	

4. Pressure Resistance

The VNP (AL99) series has the same or higher pressure resistance than the VNP (BR) series.
Shown below are the results of the pressure test and the Vickers hardness of the ceramic tip orifice materials of the new and previous series.

Pressure Test
Test nozzle: 1/8M VNP 2549 AL99-S303
Test pressure: 22.5 MPa (1.5 times higher than the max. operating pressure of 15 MPa listed in our catalog)
Test description: Increase the pressure to 22.5 MPa using a hydrostatic pressure tester with the spray orifice blocked, and confirm that the nozzle is not damaged.
Test result: No damage on the nozzle after pressurization to 22.5 MPa

Vickers hardness
Tip orifice material of VNP (BR) series: AL92% →1,000–1,200 kg/mm^2
Tip orifice material of VNP (AL99) series: AL99% →1,800 kg/mm^2
(Test load 500g)

As shown, the VNP (AL99) series has the same or higher pressure resistance than the VNP (BR) series.