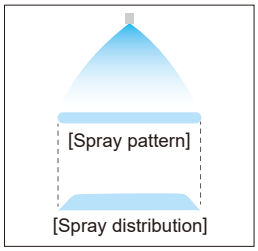
Even Flat Spray Nozzles VEP / VE



- Flat spray pattern with uniform distribution across the pattern area.
- Even spray impact across the entire spray area.

[STANDARD PRESSURE]
0.3 MPa

[APPLICATIONS]

Cleaning: Automotives, containers, films, felts, filters, screens, bottles, crushed stone, earth and sand, metal parts, machines, steel plates, steel pieces, wires
Spraying: Etchants, oils, lubricants, liquids, solutions, insecticides, herbicides
Cooling: Gas, heat exchangers, tanks, steel, roofs
Water screen: Fire protection, heat protection, dust suppression, deodorization

VEP SERIES (one-piece structure)

Structure	● One-piece structure with a ceramic orifice insert. ● Small spray capacity VEP nozzles made of metal come with or without a strainer. ● CERTIIM is a one-piece plastic nozzle molded around a ceramic orifice.
Material	● Nozzle orifice: ceramic ● Metal parts: S303 or B (brass) ● CERTIIM's plastic body: PVDF SPECIAL ORDER MATERIAL: S316 or others

Pipe conn. size	Dimensions (mm)					Weight (g)		
	L1	L2	H	øD	N	S303*1	B*1	CER-TIIM
R1/8	16.5	30	12	7.5	6.5	8	9	–
R1/4	26	40	14	10	10.5	20	22	–
R3/8	30	–	19	–	11	33	–	–
R1/2	38	–	23	–	14	57	–	–
CER-TIIM R1/8	22	–	12	–	8.5	–	–	2.1
CER-TIIM R1/4	26	–	14	–	10.5	–	–	6

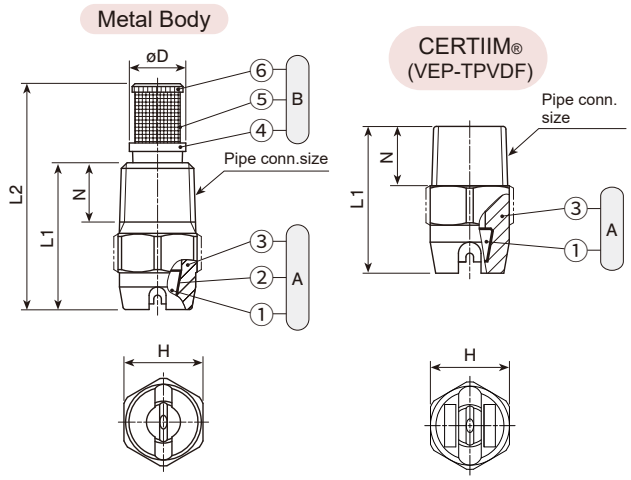
*1) With strainer, add 2 g for R1/8 and 5 g for R1/4 to the above weight.
No strainers for CERTIIM (VEP-TPVDF).

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

Strainer is optional on some metal VEP models and can be ordered without it. See table for details.

DRAWING

Unit: mm



Ⓐ **Nozzle** (①Ceramic orifice ②Adhesive: Araldite® ③Nozzle body)
Ⓑ **Strainer** (④Strainer holder ⑤Strainer screen [S316] ⑥Strainer cap)

VE SERIES (three-piece structure)

Structure	● Three-piece structure with a ceramic orifice insert. ● Includes three parts: Nozzle tip, cap, and adaptor. Worn-out nozzle tips can be replaced separately. ● Small spray capacity models come with or without a strainer.
Material	● Nozzle orifice: ceramic ● Tip retainer: S303 ● Cap, Adaptor, and Strainer: S303 SPECIAL ORDER MATERIAL: S316 or others
Weight	● Complete assembly*2: 43 g ● Nozzle tip: 6.5 g

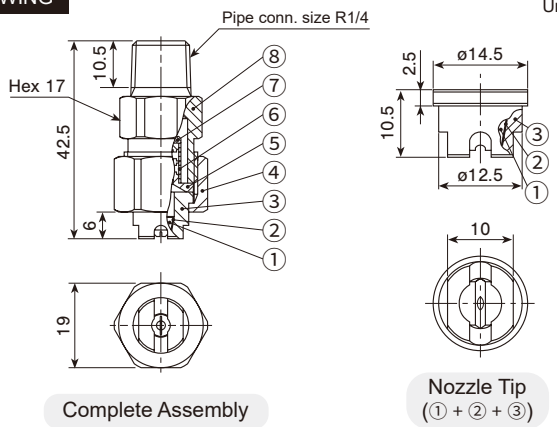
*2) With strainer, add 4 g to the above weight and 2 mm to the total length.

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

Strainer is optional on some models and can be ordered without it. See table for details.

DRAWING

Unit: mm



Nozzle (①Ceramic orifice ②Adhesive: Araldite® ③Tip retainer ④Cap ⑧Adaptor)
Strainer (⑤Strainer holder ⑥Strainer screen [S316] ⑦Strainer cap)

Flat Spray

Spray angle code	Spray capacity code	Pipe connection size: VEP Metal Body R1/8	VEP Metal Body R1/4	VEP Metal Body R3/8	VEP Metal Body R1/2	VEP CERTIIM R1/8	VEP CERTIIM R1/4	VE R1/4	Spray angle (°) 0.15 MPa	0.3 MPa	0.7 MPa	Spray capacity (L/min) 0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	1 MPa	2 MPa	3 MPa*3	5 MPa*3	Mean drop. dia. (μm)	Free pass. dia. (mm)	Strainer mesh size
115	19		●				○	●	104	115	122	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	240	0.5	100
	23		●				○	●	105	115	122	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39		0.6	100
	31		●				○	●	105	115	122	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		0.6	100
	36		●				○	●	105	115	122	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		0.7	50
	39		●				○	●	105	115	122	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9	≀	0.7	50
	59		●				○	●	105	115	122	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1		0.9	50
	78		○				○	○	106	115	121	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		1.0	–
	117		○				○	○	106	115	120	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		1.2	–
	157		○				○	○	106	115	120	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		1.4	–
	196			○					108	115	120	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	450	1.6	–
	235			○					108	115	118	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9	≀	1.7	–
	274			○					108	115	118	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112		1.9	–
	314				○				108	115	118	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	510	2.0	–
	392				○				108	115	118	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	2.2	–
	469				○				108	115	118	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	640	2.4	–
90	03	●	●			○	○	●	78	90	101	–	0.17	0.21	0.24	0.30	0.39	0.46	0.55	0.77	0.95	1.22	140	0.2	200
	04	●	●			○	○	●	79	90	101	–	0.23	0.28	0.33	0.40	0.52	0.61	0.73	1.03	1.26	1.63		0.2	200
	05	●	●			○	○	●	79	90	101	–	0.29	0.35	0.41	0.50	0.65	0.76	0.91	1.29	1.58	2.04		0.3	150
	07	●	●			○	○	●	80	90	101	–	0.40	0.49	0.57	0.70	0.90	1.07	1.28	1.81	2.21	2.86	≀	0.3	150
	10	●	●			○	○	●	80	90	100	0.41	0.58	0.71	0.82	1.00	1.29	1.53	1.83	2.58	3.16	4.08		0.4	150
	15	●	●			○	○	●	82	90	100	0.61	0.87	1.06	1.23	1.50	1.94	2.29	2.74	3.87	4.74	6.12		0.4	150
	19		●				○	●	82	90	98	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	250	0.7	50
	23		●				○	●	82	90	98	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39		0.7	50
	31		●				○	●	83	90	97	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		0.9	50
	36		○				○	○	83	90	97	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		1.0	–
	39		○				○	○	83	90	97	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9		1.0	–
	59		○				○	○	83	90	97	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1	≀	1.2	–
	78		○				○	○	84	90	97	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		1.4	–
	117		○				○	○	84	90	96	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		1.7	–
	157		○				○	○	84	90	96	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		2.0	–
	196			○					84	90	96	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	480	2.2	–
	235			○					85	90	95	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9	≀	2.4	–
	274			○					85	90	95	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112		2.6	–
	314				○				85	90	94	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	540	2.8	–
	392				○				85	90	94	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	3.1	–
	469				○				85	90	94	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	680	3.4	–
80	19		●				○	●	72	80	84	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	260	0.7	50
	23		●				○	●	72	80	84	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39		0.8	50
	31		●				○	●	72	80	84	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		0.9	50
	36		○				○	○	72	80	84	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		1.0	–
	39		○				○	○	73	80	84	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9	≀	1.0	–
	59		○				○	○	74	80	84	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1		1.3	–
	78		○				○	○	74	80	84	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		1.6	–
	117		○				○	○	75	80	84	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		1.9	–
	157		○				○	○	76	80	84	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		2.4	–
	196			○					76	80	83	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	490	2.6	–
	235			○					76	80	83	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9	≀	3.1	–
	274			○					76	80	83	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112		3.3	–
	314				○				76	80	83	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	560	3.3	–
	392				○				76	80	83	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	3.7	–
	469				○				76	80	83	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	700	4.3	–
65	03	●	●			○	○	●	54	65	76	–	0.17	0.21	0.24	0.30	0.39	0.46	0.55	0.77	0.95	1.22	150	0.3	150
	04	●	●			○	○	●	54	65	76	–	0.23	0.28	0.33	0.40	0.52	0.61	0.73	1.03	1.26	1.63		0.3	150
	05	●	●			○	○	●	54	65	75	–	0.29	0.35	0.41	0.50	0.65	0.76	0.91	1.29	1.58	2.04		0.4	150
	07	●	●			○	○	●	55	65	75	–	0.40	0.49	0.57	0.70	0.90	1.07	1.28	1.81	2.21	2.86	≀	0.4	150
	10	●	●			○	○	●	56	65	74	0.41	0.58	0.71	0.82	1.00	1.29	1.53	1.83	2.58	3.16	4.08		0.5	100
	15	●	●			○	○	●	56	65	74	0.61	0.87	1.06	1.23	1.50	1.94	2.29	2.74	3.87	4.74	6.12		0.5	100
	19		●				○	●	57	65	73	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	270	0.8	50
	23		●				○	●	57	65	73	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39		0.9	50
	31		○				○	○	57	65	73	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		1.1	–
	36		○				○	○	57	65	73	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		1.2	–
	39		○				○	○	57	65	73	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9	≀	1.3	–
	59		○				○	○	58	65	72	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1		1.4	–
	78		○				○	○	58	65	72	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		1.8	–
	117		○				○	○	58	65	69	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		2.3	–
	157		○				○	○	58	65	69	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		2.7	–
	196			○					60	65	69	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	520	2.9	–
	235			○					60	65	69	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9	≀	3.4	–
	274			○					60	65	69	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112		3.6	–
	314				○				60	65	69	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	590	3.7	–
	392				○				60	65	69	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	4.4	–
	469				○				60	65	68	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	740	4.4	–

●: Available with or without strainer ○: Only available without strainer

*3) Use CERTIIM (VEP-TPVDF) only at pressures below 2.0 MPa.

Spray angle code	Spray capacity code	Pipe connection size: VEP Metal Body R1/8	VEP Metal Body R1/4	VEP Metal Body R3/8	VEP Metal Body R1/2	VEP CER-TIIM R1/8	VEP CER-TIIM R1/4	VE R1/4	Spray angle (°) 0.15 MPa	0.3 MPa	0.7 MPa	Spray capacity (L/min) 0.05 MPa	0.1 MPa	0.15 MPa	0.2 MPa	0.3 MPa	0.5 MPa	0.7 MPa	1 MPa	2 MPa	3 MPa*3	5 MPa*3	Mean drop. dia. (μm)	Free pass. dia. (mm)	Strainer mesh size
50	19		●				○	●	43	50	56	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	300	0.9	50
	31		○				○	○	43	50	55	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		1.2	–
	39		○				○	○	43	50	55	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9		1.4	–
	59		○				○	○	43	50	55	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1	≀	1.5	–
	78		○				○	○	43	50	55	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		2.0	–
	117		○				○	○	43	50	54	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		2.4	–
	157		○				○	○	43	50	54	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		2.9	–
	196			○					43	50	53	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	570	3.3	–
	235			○					43	50	53	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9		3.7	–
	274			○					43	50	53	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112	≀	4.0	–
	314				○				44	50	52	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	650	4.4	–
	392				○				44	50	52	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	4.7	–
	469				○				44	50	52	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	850	5.0	–
40	23		○				○	○	31	40	46	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39	350	1.1	–
	36		○				○	○	32	40	45	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		1.4	–
	59		○				○	○	32	40	45	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1		1.8	–
	78		○				○	○	33	40	45	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8	≀	2.1	–
	117		○				○	○	33	40	44	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		2.6	–
	157		○				○	○	33	40	44	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		3.0	–
	196			○					33	40	43	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	630	3.6	–
	235			○					33	40	43	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9		3.7	–
	274			○					33	40	43	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112	≀	4.1	–
	314				○				33	40	43	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	720	4.3	–
	392				○				33	40	43	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	4.8	–
	469				○				34	40	43	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	900	5.5	–
25	19		○				○	○	18	25	32	0.78	1.10	1.34	1.55	1.90	2.45	2.90	3.47	4.91	6.00	7.76	390	1.1	–
	31		○				○	○	19	25	32	1.26	1.79	2.19	2.53	3.10	4.00	4.74	5.66	8.00	9.80	12.7		1.4	–
	39		○				○	○	20	25	32	1.59	2.25	2.76	3.18	3.90	5.03	5.96	7.12	10.1	12.3	15.9		1.5	–
	59		○				○	○	21	25	32	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1	≀	1.9	–
	78		○				○	○	21	25	32	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8		2.3	–
	117		○				○	○	21	25	32	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		2.7	–
	157		○				○	○	21	25	32	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		3.4	–
	196			○					21	25	32	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	730	3.7	–
	235			○					21	25	31	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9		4.0	–
	274			○					21	25	31	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112	≀	4.5	–
	314				○				21	25	31	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	800	4.8	–
	392				○				21	25	31	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	5.1	–
	469				○				21	25	31	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	1,050	5.5	–
15	23		○				○	○	10	15	19	0.94	1.33	1.63	1.88	2.30	2.97	3.51	4.20	5.94	7.27	9.39	500	1.3	–
	36		○				○	○	10	15	19	1.47	2.08	2.55	2.94	3.60	4.65	5.50	6.57	9.30	11.4	14.6		1.6	–
	59		○				○	○	10	15	19	2.40	3.41	4.17	4.82	5.90	7.62	9.01	10.8	15.2	18.6	24.1		2.0	–
	78		○				○	○	10	15	19	3.18	4.50	5.52	6.37	7.80	10.1	11.9	14.2	20.1	24.7	31.8	≀	2.4	–
	117		○				○	○	10	15	19	4.78	6.75	8.27	9.55	11.7	15.1	17.8	21.4	30.2	37.0	47.8		3.0	–
	157		○				○	○	12	15	19	6.41	9.06	11.1	12.8	15.7	20.3	24.0	28.0	40.5	49.6	64.1		3.5	–
	196			○					13	15	19	8.00	11.3	13.9	16.0	19.6	25.3	30.0	35.8	50.6	62.0	80.0	850	3.8	–
	235			○					13	15	19	9.54	13.6	16.6	19.2	23.5	30.3	35.9	42.9	60.7	74.3	95.9		4.3	–
	274			○					13	15	19	11.2	15.8	19.4	22.4	27.4	35.4	41.9	50.0	70.7	86.6	112	≀	4.7	–
	314				○				13	15	19	12.8	18.1	22.2	25.6	31.4	40.5	48.0	57.3	81.1	99.3	128	950	5.2	–
	392				○				13	15	19	16.0	22.6	27.7	32.0	39.2	50.6	60.0	71.6	101	124	160	≀	5.4	–
	469				○				13	15	18	19.1	27.0	33.2	38.4	46.9	60.7	71.8	85.6	121	149	192	1,250	5.8	–

●: Available with or without strainer ○: Only available without strainer

*3) Use CERTIIM (VEP-TPVDF) only at pressures below 2.0 MPa.

HOW TO ORDER

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

VEP SERIES (One-Piece Structure)

Example: 1/4M VEP 11519 S303W

1/4M	VEP	115	19	S303	W
Pipe conn. size*7		Spray angle code	Spray capacity code*4	Material*5	Strainer*6
■ 1/8M		■ 115	■ 03	■ S303	■ W (with strainer)
■ 1/4M		≀	≀	■ B	■ (Blank indicates "without strainer")
■ 3/8M		■ 15	■ 469	■ TPVDF	
■ 1/2M					

*4) When spray capacity code is 03, 04, or 05, "AL99-" is indicated before the material code.
Example: 1/4M VEP 9003 **AL99-**S303W

*5) Brass body available in R1/8 and R1/4 only (VEP series).

*6) No strainers for VEP-TPVDF.

*7) "M" indicates male thread ("R" of the ISO standard), e.g. 1/4M = R1/4.

VE SERIES (Three-Piece Structure)

①Complete Assembly

Example: 1/4M VE 11519 S303W

1/4M	VE	115	19	S303	W
Pipe conn. size*7		Spray angle code	Spray capacity code*4	Material	Strainer
		■ 115	■ 03		■ W (with strainer)
		≀	≀		■ (Blank indicates "without strainer")
		■ 15	■ 157		

②Nozzle Tip Only

Example: VE 11519-TIP S303

VE	115	19	-TIP	S303
	Spray angle code	Spray capacity code*4		Tip retainer material
	■ 115	■ 03		
	≀	≀		
	■ 15	■ 157		