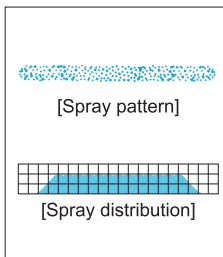


Quick-detachable Even Flat Spray Nozzles

Stainless Steel

INVE

Flat Spray



[Features]

- Flat spray pattern with uniform distribution throughout pattern area.
- Easy mounting/dismounting with a knurled tab.
- Quick-detachable design helps to significantly reduce maintenance time.

[Standard pressure]

0,3 MPa

[Applications]

Cleaning: Automotives, containers, films, felts, filters, screens, bottles, crushed stones, earth and sand, metal parts, machines, steel plates and pieces, wires
Spraying: Oils, lubricants, glues, insecticides, herbicides
Cooling: Tanks, roofs
Water screen: Dust suppression, deodorization

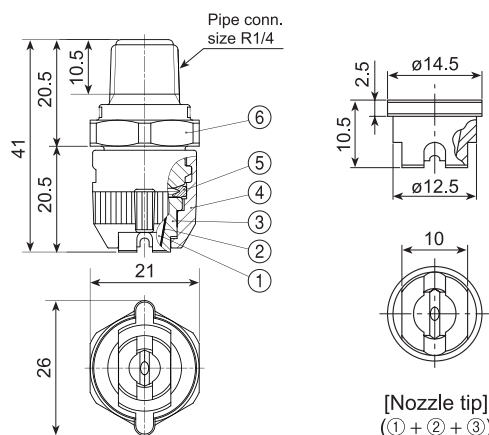
INVE series

INVE series (with ceramic orifice inserted)	
Structure	<ul style="list-style-type: none"> • Includes a ceramic orifice in the nozzle tip. • Comprises a nozzle part (nozzle tip + cap + packing) and an adaptor. • Worn-out nozzle tip and other parts are individually available for replacement. • The nozzle part can be removed and installed simply by turning 90° with one hand. • Tip or packing will not fall off when removing the nozzle part.
Material	<ul style="list-style-type: none"> • Nozzle orifice: Ceramic • Tip retainer: S303 • Cap and Adaptor: S316L equivalent • Packing: FEPM
Mass	<ul style="list-style-type: none"> • Complete assemblies: 51 g • Nozzle tip: 6,5 g

Heat resistance temperature: 60°C

Withstanding pressure: 2,0 MPa

[Note] Appearance and dimensions may differ slightly depending on materials and nozzle codes.



- ①Ceramic orifice ②Adhesive: Araldite® ③Tip retainer
 ④Cap ⑤Packing ⑥Adaptor

Safe design
prevents parts
from dropping off

Parts do not
fall off

Quick-
detachable

Common features of INVV-SS, INV, and INVE series

Easy installation and removal just
by turning the nozzle manually!

Stainless steel types have been newly
added to our quick-detachable IN series.
See pages 15–16 for INVV-SS and INV
series nozzles.

Spray angle code	Spray capacity code	Spray angle (°)			Spray capacity (ℓ/min)												Mean droplet diameter (μm)	Free passage diameter (mm)
		0.15 MPa	0.3 MPa	0.7 MPa	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	5 MPa			
115	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	350	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	450	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	450	1.4	
90	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	300	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	300	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	300	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	300	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	300	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	300	2.0	
80	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	310	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	310	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	310	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	310	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	310	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	310	2.4	
65	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	350	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	350	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	350	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	350	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	350	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	350	2.3	
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	350	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	350	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	350	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	350	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	350	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	350	2.9	
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	350	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	350	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	350	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	350	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	350	3.0	
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	390	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	390	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	390	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	390	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	390	2.7	
15	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	390	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	390	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	390	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	390	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	390	2.7	
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	500	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	500	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	500	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	500	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	500	3.5	

How to order

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

① Complete assemblies

⟨Example⟩ 1/4M INVE 11578 S303 (FEPM) + S316L-IN

1/4M INVE	115	78	S303 (FEPM) + S316L-IN
	Spray angle code	Spray capacity code	
	■ 115	■ 19	
	∩	∩	
	■ 15	■ 157	

② Nozzle tip only

⟨Example⟩ 1/4M VE 11578 S303

1/4 VE	115	78	S303
	Spray angle code	Spray capacity code	
	■ 115	■ 19	
	∩	∩	
	■ 15	■ 157	

Note: Nozzle tips of INVE series are the same as those used on VE series.