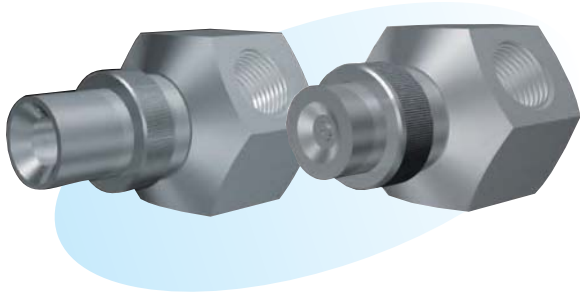


# Pneumatic Atomizing Nozzles (Low Flow Rate Type) NA/NAF Types



## ► Features

- Flow rate controllable within a wide range, from very small to relatively large.
- Compact and lightweight nozzles for connection in a limited space.
- Wide range of flow rate control.

## ► Applications

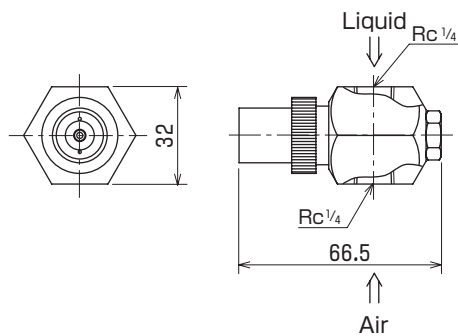
- Coating and post treatment after galvanization of steel sheets.
- Humidification in paper making and humidification of air and other gases.
- Spraying of chemicals, etc.

## ► Materials

- Stainless steel (standard material: SUS303) or brass

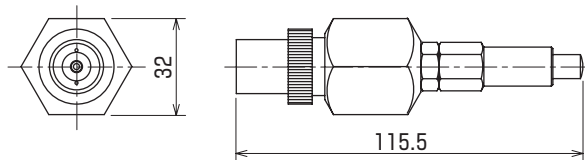
## Shapes and dimensions

- External mixing, flat spray pattern, NA type  
Without needle



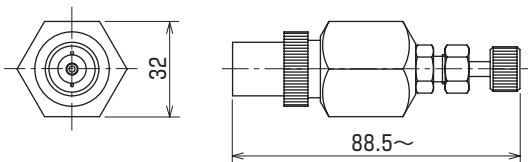
Weight(g) 230

- External mixing, flat spray pattern, NAC type  
With push-type cleaning needle



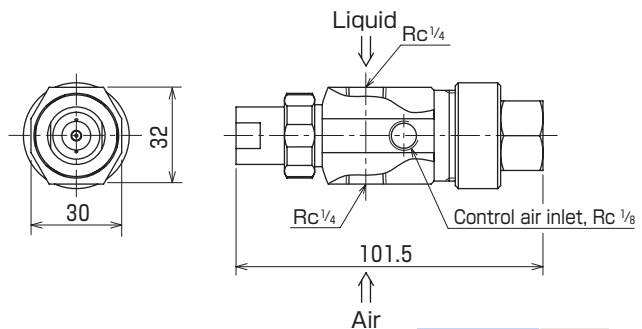
Weight(g) 280

- External mixing, flat spray pattern, NAN type  
With closure needle



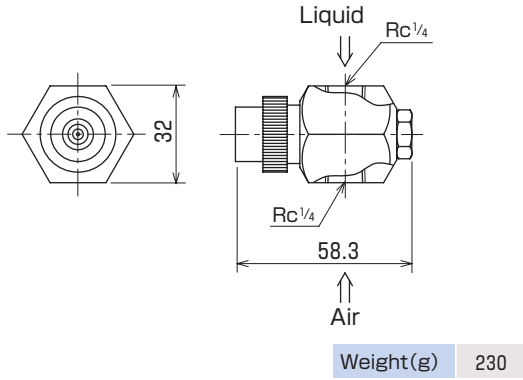
Weight(g) 290

- External mixing, flat spray pattern, NA-AC type  
With automatic cylinder

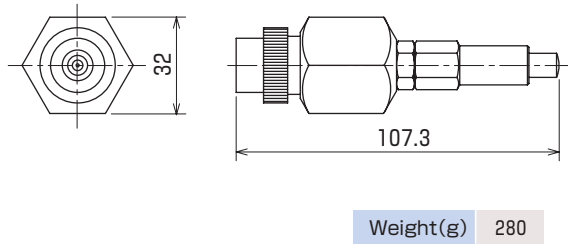


Weight(g) 320

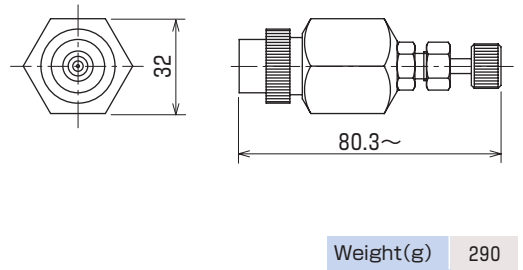
- External mixing, full-cone spray pattern, NAF type  
Without needle



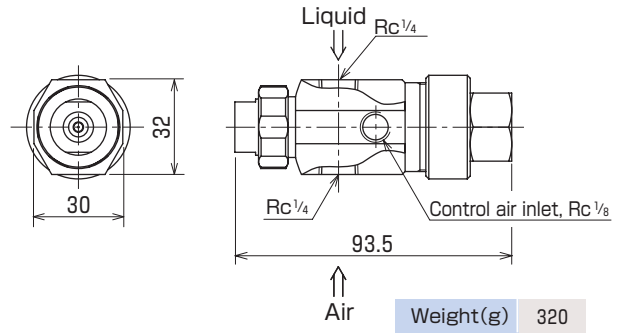
- External mixing, full-cone spray pattern, NAFC type  
With push-type cleaning needle



- External mixing, full-cone spray pattern, NAFN type  
With closure needle

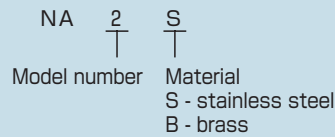


- External mixing, full-cone spray pattern, NAF-AC type  
With automatic cylinder



NPT thread is also available.

● Model and Model Number representing



● Standard type model number list

Model	Model number	Minimum orifice diameter for liquid (mm)	Air pressure (MPa)	Air flow rate (L/min(nor))	Water flow rate (mL/min) at following water pressure (MPa)				Spray angle	Siphon system	
					0.05	0.1	0.15	0.2		Water flow rate (mL/min)	Spray angle
NA	1	0.6	0.1	44	110	135			40°~50°		
			0.2	67	115	155	190	200	40°~50°	40	30°~40°
			0.3	88	125	160	195	215	40°~50°	50	30°~40°
			0.4	111	130	170	200	215	40°~50°	60	30°~40°
			0.5	134	130	170	195	210	40°~50°		
			0.6	155	135	165	185	200	40°~50°		
	2	0.8	0.1	62	220	270			40°~60°		
			0.2	93	230	310	380	400	40°~60°	70	30°~40°
			0.3	124	250	320	390	430	40°~60°	80	30°~40°
			0.4	155	260	340	400	430	40°~60°	100	30°~40°
			0.5	186	260	340	390	420	40°~60°	120	30°~40°
			0.6	217	270	350	370	400	40°~60°		
	4	1.0	0.1	95	430	550			50°~70°		
			0.2	143	470	620	750	800	50°~70°	130	35°~45°
			0.3	190	500	650	780	850	50°~70°	140	35°~45°
			0.4	237	530	680	800	850	50°~70°	170	35°~45°
			0.5	285	530	680	780	830	50°~70°	210	35°~45°
			0.6	332	540	650	730	800	50°~70°		
	6	1.3	0.1	102	620				50°~70°	290	35°~45°
			0.2	153	640	880	1040		50°~70°	320	35°~45°
			0.3	204	660	880	1080	1240	50°~70°	350	35°~45°
			0.4	255	610	880	1070	1220	50°~70°	340	35°~45°
			0.5	306	550	880	1050	1200	50°~70°	320	35°~45°
			0.6	361	490	850	1030	1170	50°~70°	210	35°~45°
NAF	1	0.6	0.1	30	110	135			20°		
			0.2	45	115	155	190	200	20°	40	15°
			0.3	60	125	160	195	215	20°	50	18°
			0.4	75	130	170	200	215	20°	60	20°
			0.5	90	130	170	195	210	20°		
			0.6	105	135	165	185	200	20°		
	2	0.8	0.1	34	220	270			20°		
			0.2	51	230	310	380	400	20°	70	15°
			0.3	68	250	320	390	430	20°	80	18°
			0.4	85	260	340	400	430	20°	100	20°
			0.5	102	260	340	390	420	20°	120	20°
			0.6	119	270	350	370	400	20°		
	4	1.0	0.1	38	430	550			20°		
			0.2	57	470	620	750	800	20°	130	15°
			0.3	76	500	650	780	850	20°	140	18°
			0.4	95	530	680	800	850	20°	170	20°
			0.5	114	530	680	780	830	20°	210	20°
			0.6	133	540	650	730	800	20°		
	6	1.3	0.1	88	620				20°	290	15°
			0.2	132	640	880	1040		20°	320	18°
			0.3	176	660	880	1080	1240	20°	350	20°
			0.4	220	610	880	1070	1220	20°	340	20°
			0.5	264	550	880	1050	1200	20°	320	18°
			0.6	308	490	850	1030	1170	20°	210	14°

- Notes: 1. Blanks for the pressure spray system indicate cases where coarse particles are large in number, and those for the siphon system indicate a pulsating state or the ceasing of spray.  
 2. In the case of the siphon system, the values are given assuming a 1 meter pressure head. Spray is available down to a 0.3 meter negative pressure head. Water flow rates are approximately 1/2 of the indicated values if the pressure head is 0, and approximately 1/3 to 1/4 of the indicated values for a 0.3 meter negative pressure head.  
 3. Spray thickness of the NAF type is 50 to 100 mm at a distance of 300 mm.