

Round spray air nozzles with internal-mixing suction-gravity system

Characteristics

The rotating air flow results in a full cone spray pattern with a wide spray angle of 30° - 95°. Suction height up to 1.2 m or a free liquid inlet.

Throughput, spray angle and droplet size can be varied by changes in air amount, suction height etc..

Clog-resistant operating even for the smallest flow rate due to large flow diagrams.

Connections:

Connection 1/8"

Connection 1/4"

For functional description see page 10.1 - 10.2

Control and adjustment see page 10.3 - 10.4

Suction system:

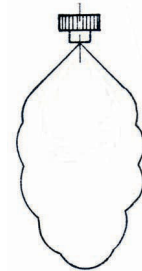
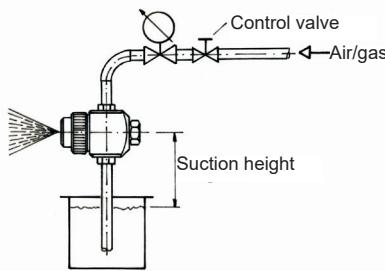
Liquid is sucked in by the air/gas flow or flows in due to gravity.

Application

Vaccinations, Drying, Spray lubrication, Spray-drying, Cooling and quenching, Gas treatment, Coating, Granulation, Pelleting.

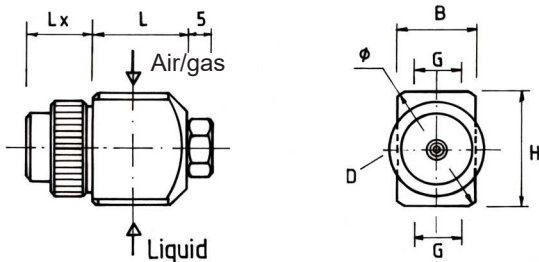
Material

Brass
Stainless steel
Other materials on request



Full cone
spray angle 30°-90°
varies with conditions

Dimensions:

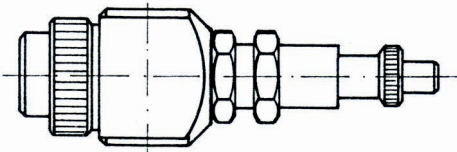


Dimensions in mm

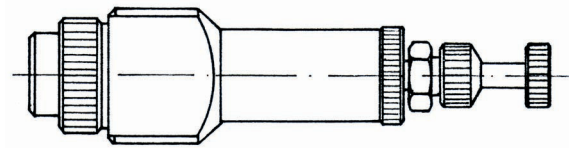
Type	G	L	L1	H	W	Ø	Lx	D
Z 30-ND	1/8"	25	45	30	20	34	24	24
Z 35-ND	1/4"	25	45	35	25	42	24	24

Control example

(for other examples see page 10.3 and 10.4):

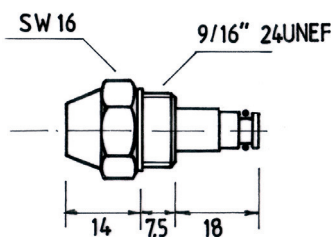


Type D manual control with cleaning, regulation and shut-off needle



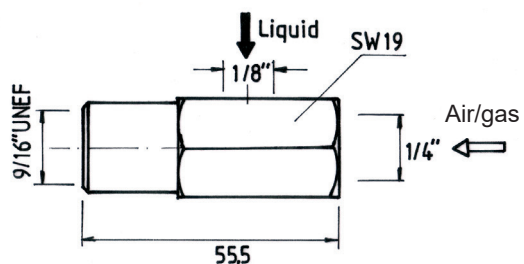
Type B2 and B3 pneumatic control with cleaning, regulation and shut-off needle

Alternative for oil burners and moistening:



Type ZD: technical data corresponds to type Z-ND, design differs, to be screwed into adapter

Materials:



Adapter ZD and nozzle in brass design; swirl chamber and drilling plate made from stainless steel

Order example: (thread connection - type - size - angle - material) 1/8" Z-ND - 3 - 30° - brass

Output water (l/h) - Air required (Nm³/min.)

Type	Atomizing air		Water capacity L/h											Spray angle	
	Press. (bar)	Throughput (m ³ /min.)	Intake height in cm				Suction height in cm						0.15 m Inlet	0.203 m Suction height	
			60	45	30	15	0.30	10	20	30	60	90			120
Z-ND 1	0.21	0.010	2.10	1.90	1.50	1.20	0.80	0.60	0.60	0.40	0.20	0.10		40°	40°
	0.35	0.013	2.00	1.90	1.60	1.40	1.00	0.90	0.80	0.60	0.40	0.30	0.20	40°	35°
	0.70	0.023	1.90	1.80	1.60	1.40	1.20	1.20	1.10	1.00	0.70	0.60	0.40	40°	30°
	1.00	0.029	1.70	1.60	1.50	1.30	1.20	1.10	1.10	1.00	0.80	0.70	0.60	40°	30°
	1.40	0.036	1.40	1.40	1.20	1.20	1.10	1.00	0.90	0.90	0.80	0.60	0.60	35°	30°
	2.10	0.048	0.90	0.90	0.80	0.70	0.70	0.60	0.60	0.60	0.50	0.40	0.30	30°	30°
	2.80	0.059				0.30	0.40	0.30	0.20	0.20	0.10			30°	30°
Z-ND 2	0.21	0.010	2.20	2.00	1.70	1.40	1.00	0.90	0.70	0.60	0.20	0.10		60°	45°
	0.35	0.014	2.30	2.00	1.80	1.60	1.20	1.10	1.00	0.90	0.60	0.30	0.20	60°	40°
	0.70	0.024	2.30	2.10	1.90	1.80	1.50	1.40	1.40	1.30	1.10	0.80	0.60	40°	30°
	1.00	0.031	2.20	2.00	1.90	1.90	1.70	1.60	1.60	1.50	1.30	1.00	0.80	35°	30°
	1.40	0.036	2.10	2.00	1.70	1.80	1.80	1.70	1.70	1.60	1.40	1.20	1.00	30°	30°
	2.10	0.051	1.80	1.80	1.50	1.70	1.40							30°	
	2.80	0.063	1.30	1.20	1.00	1.00								30°	
Z-ND 3	0.21	0.010					1.50	1.20	1.00	0.70				65°	45°
	0.35	0.015		2.50	2.20	2.00	1.80	1.60	1.50	1.20	0.90	0.50	0.30	65°	45°
	0.70	0.026	2.80	2.70	2.50	2.30	2.20	2.10	2.00	1.90	1.60			35°	30°
	1.00	0.033	3.00	2.80	2.60	2.50	2.40	2.30	2.20	2.10	1.90			30°	30°
	1.40	0.039	3.10	2.90	2.70	2.60	2.50	2.40	2.30	2.20	2.00			30°	30°
	2.10	0.053	3.00	2.80	2.60	2.50	2.40	2.30	2.30	2.20	2.10			30°	30°
	2.80	0.067	2.70	2.50	2.40	2.30	2.10	2.10	2.10	2.00	1.90			30°	30°
Z-ND 4	0.21	0.012	4.30	3.70	3.10	2.60	1.90	1.50	1.30	0.90				65°	50°
	0.35	0.017	3.90	3.50	2.90	2.60	2.10	1.90	1.60	1.30	0.80	0.40		40°	45°
	0.70	0.030	3.40	3.10	2.70	2.50	2.20	2.00	1.90	1.80	1.30			35°	35°
	1.00	0.039	3.10	2.90	2.60	2.50	2.20	2.00						30°	
	1.40	0.048	2.60	2.40	2.30	1.90								30°	
	2.10	0.061	2.00	1.80	1.70	1.60								30°	
	2.80	0.074	0.90	0.80	0.70	0.60								20°	
Z-ND 5	0.21	0.013	4.80	4.20	3.60	3.00	2.20	1.90	1.50	1.20	0.60	0.20		70°	50°
	0.35	0.019	4.60	4.20	3.60	3.30	2.70	2.50	2.20	1.90	1.10	0.60		65°	45°
	0.70	0.033	4.60	4.20	3.90	3.60	3.30	3.10	2.90	2.70	2.20			40°	35°
	1.00	0.043	4.40	4.20	4.00	3.70	3.40	3.30	3.20	3.10	2.60			35°	30°
	1.40	0.052	4.30	4.00	3.90	3.70	3.50	3.40	3.40	3.20	2.90			30°	30°
	2.10	0.072	4.00	3.90	3.60	3.50	3.60	3.60	3.40	3.30	2.90			30°	30°
	2.80	0.090	3.40	3.30	3.10	2.90								30°	30°
Z-ND 6	0.21	0.014	6.40	5.60	4.50	3.80	2.80	2.30	1.90	1.30				65°	50°
	0.35	0.020	5.90	5.30	4.60	4.00	3.30	3.10	2.60	2.20	1.30			65°	45°
	0.70	0.033	5.20	4.80	4.20	4.00	3.70	3.60	3.40	3.10	2.60			40°	35°
	1.00	0.043	4.80	4.60	4.20	4.00	3.80	3.70	3.50	3.30	2.70			40°	35°
	1.40	0.054	4.50	4.30	4.10	3.80	3.70	3.60	3.50	3.30	2.90			35°	30°
	2.10	0.076	4.30	4.00	3.80	3.60	3.30	3.30	3.10	3.00	2.70			30°	30°
	2.80	0.087	3.50	3.40	3.20	2.80	2.80	2.70	2.60	2.60	2.40			30°	30°
Z-ND 7	0.21	0.018	6.89	6.28	5.34	4.01	3.14	2.65	2.08	1.40	0.45			95°	85°
	0.35	0.024	6.74	6.09	5.41	4.50	3.79	3.44	3.03	2.54	1.40	0.53		85°	80°
	0.70	0.037	6.78	6.32	5.87	5.26	4.81	4.66	4.35	3.97	2.91	2.04		65°	65°
	1.00	0.048	6.85	6.40	5.87	5.30	4.96	4.77	4.47	4.16	3.48	2.84		55°	55°
	1.40	0.061	6.66	6.21	5.90	5.41	5.07	4.84	4.58	4.24	3.63	3.10		45°	45°
	2.10	0.081	7.15	6.81	6.55	5.98	5.56	5.53	5.22	5.15	4.43	3.71		35°	35°
	2.80	0.102	8.02	7.49	7.19	6.93	6.32	6.25	6.09	5.90	5.11	4.62		35°	35°
Z-ND 8	0.21	0.018	10.3	8.40	7.57	5.15	3.79	2.91	1.85	0.30				95°	90°
	0.35	0.024	9.77	8.55	7.65	5.87	4.77	4.24	3.41	2.50				95°	90°
	0.70	0.035	9.69	8.93	8.18	6.81	6.36	5.83	5.22	4.66	2.88	0.53		75°	75°
	1.00	0.046	9.69	9.01	8.40	7.42	6.93	6.70	6.21	5.68	4.35	2.54		70°	70°
	1.40	0.058	9.27	8.67	8.18	7.46	7.08	6.93	6.32	6.02	5.41	3.48		65°	65°
	2.10	0.077	8.48	7.65	7.19	6.66	6.32	6.21	5.72	5.49	3.90	3.29		55°	55°
	2.80	0.094	8.63	8.14	7.68	7.00	6.55	6.36	6.09	5.79	4.96	3.86		50°	50°