

NFD

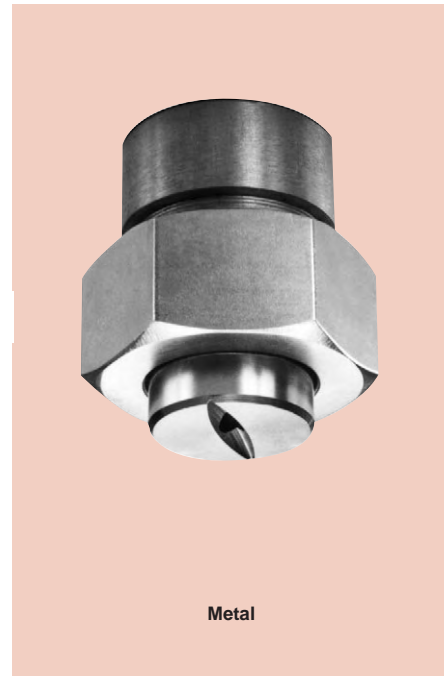
Dovetail Flat Fan

DESIGN FEATURES

- Dovetail joint guarantees alignment of interchangeable tips
- Dimensionally compatible with other dovetail systems
- Tips offset 5° or 15° for overlapping spray patterns
- Tapered overlapping spray provides uniform coverage
- Male, female and welded connections
- Other sizes available upon request

SPRAY CHARACTERISTICS

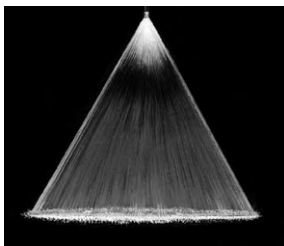
Spray pattern: Flat Fan
Spray angles: 20°, 30°, 45°, 60°, 90° and 120°. Special angles are available on request
Flow rates: 0.04 to 157 gpm



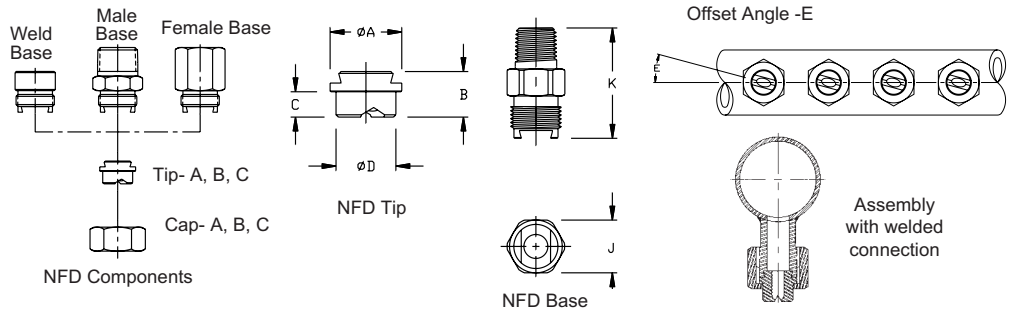
Metal



FAN



Fan 45°



Dimensions are approximate. Check with BETE for critical dimension applications.

NFD Flow Rates and Dimensions

Fan, 20°, 30°, 45°, 60°, 90°, 120° Spray Angles, 1/4", 3/8", 1/2", 3/4" and 1-1/4" Pipe Size, or Welded Connections

Cap & Tip Size	Nozzle Number	Base Sizes* Available	K Factor	GALLONS PER MINUTE @ PSI										Equiv. Orifice Dia. (in.)	Approximate Tip Dimensions (in.)					Wt. (Oz.)	BSP NPT Pipe	Approx. Base Dim. (in.)	
				10 PSI	20 PSI	40 PSI	60 PSI	80 PSI	100 PSI	200 PSI	400 PSI	A	B		C	D	E	J	K				
A	NFD 010	1/4 3/8 1/2	0.016	0.049	0.070	0.10	0.12	0.14	0.16	0.22	0.31	0.028	0.58	0.47	5°	1.5	1/4"	0.69	1.44				
	NFD 014	1/4 3/8 1/2	0.022	0.070	0.10	0.14	0.17	0.20	0.22	0.31	0.44	0.035											
	NFD 019	1/4 3/8 1/2	0.031	0.10	0.14	0.19	0.24	0.28	0.31	0.44	0.62	0.039											
	NFD 031	1/4 3/8 1/2	0.049	0.15	0.22	0.31	0.38	0.44	0.49	0.69	0.98	0.047											
	NFD 039	1/4 3/8 1/2	0.061	0.19	0.27	0.39	0.47	0.55	0.61	0.87	1.22	0.053											
	NFD 050	1/4 3/8 1/2	0.078	0.25	0.35	0.50	0.61	0.70	0.78	1.10	1.56	0.059											
	NFD 059	1/4 3/8 1/2	0.093	0.29	0.42	0.59	0.72	0.83	0.93	1.32	1.86	0.065											
	NFD 077	1/4 3/8 1/2	0.122	0.39	0.55	0.77	0.95	1.10	1.22	1.73	2.44	0.079											
	NFD 097	1/4 3/8 1/2	0.154	0.49	0.69	0.97	1.19	1.38	1.54	2.18	3.08	0.087											
	NFD 12	1/4 3/8 1/2	0.196	0.62	0.88	1.24	1.52	1.75	1.96	2.77	3.92	0.098											
NFD 15	1/4 3/8 1/2	0.233	0.74	1.04	1.47	1.80	2.08	2.33	3.30	4.66	0.106												
NFD 49	1/4 3/8 1/2	0.781	2.47	3.49	4.94	6.05	6.98	7.81	11.0	15.6	0.197												
B	NFD 20	3/4	0.309	0.98	1.38	1.95	2.39	2.76	3.09	4.37	6.18	0.118	0.94	6.0	1/2"	0.88	1.75						
	NFD 25	3/4	0.392	1.24	1.75	2.48	3.04	3.50	3.92	5.54	7.84	0.138											
	NFD 31	3/4	0.488	1.54	2.18	3.09	3.78	4.37	4.88	6.90	9.76	0.157											
	NFD 39	3/4	0.612	1.94	2.74	3.87	4.74	5.48	6.12	8.65	12.2	0.177											
	NFD 50	3/4	0.785	2.48	3.51	4.95	6.08	7.02	7.85	11.1	15.6	0.197											
	NFD 62	3/4	0.981	3.10	4.39	6.21	7.60	8.77	9.81	13.9	19.6	0.217											
	NFD 77	3/4	1.22	3.87	5.48	7.72	9.49	11.0	12.2	17.2	24.4	0.236											
	NFD 87	3/4	1.37	4.34	6.14	8.66	10.6	12.3	13.7	19.4	27.4	0.252											
	NFD 104	3/4	1.64	5.19	7.34	10.4	12.7	14.7	16.4	23.2	32.8	0.283											
	NFD 124	3/4	1.96	6.20	8.77	12.4	15.2	17.5	19.6	27.7	39.2	0.315											
NFD 155	3/4	2.45	7.75	11.0	15.5	19.0	21.9	24.5	34.6	49.0	0.354												
NFD 195	3/4	3.08	9.75	13.8	19.5	23.9	27.6	30.8	43.6	61.6	0.394												
C	NFD 124	1- 1/4	1.96	6.20	8.77	12.4	15.2	17.5	19.6	27.7	39.2	0.315	1.51	0.87	0.53	1.26	15°	8.0	1-1/4"	1.75	2.50		
	NFD 195	1- 1/4	3.08	9.75	13.8	19.5	23.9	27.6	30.8	43.6	61.6	0.394											
	NFD 309	1- 1/4	4.88	15.4	21.8	30.9	37.8	43.7	48.8	69.1	97.6	0.475											
	NFD 496	1- 1/4	7.85	24.8	35.1	49.6	60.8	70.2	78.5	111	157	0.591											

Flow Rate (GPM) = $K\sqrt{PSI}$ *NPT, BSP, male or female or weldable pipe connections. Dimensions are for male base, female and weldable vary

Standard Materials: Brass, 303 Stainless Steel and 316 Stainless Steel. Weldable adapters also available in mild steel.

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

TO ORDER: specify pipe size, connection type, nozzle number, spray angle, and material.