



wide angle series



single type(BB)



fission type(BBG)

BB wide angle series spray nozzles feature a solid cone spray pattern with a round impact area and spray angles between 120° and 125°.

They produce a uniform distribution of medium to large sized drops over a wide range of flow rates and pressures. They are ideal choice for applications requiring complete coverage to a certain area.

With the uniform spray distribution resulting from a unique vane design and exact size, the nozzles insure correct and dependable performance.

wide angle series

Nozzle Inlet Conn.	Capacity Size	Nozzle Type		Material code			Rated Orifice Dia. (mm)	Max. Hole Dia. (mm)	Capacity (L/min)											Spray angle		
		single type	fission type	BRA	SS	316SS			0.2 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	0.5 bar	1.5 bar	6 bar	
1/8	2.8W	●	●	●	●	●	1.6	1.0		1.2	1.5	1.7	2.0	2.3	2.5	2.7	2.9	3.5	116°	120°	102°	
	4.3W	●	●	●	●	●	2.0	1.0		1.9	2.3	2.6	3.1	3.5	3.9	4.2	4.5	5.4	116°	120°	102°	
	5.6W	●	●	●	●	●	2.4	1.0		1.8	2.5	3.1	3.4	4.0	4.6	5.1	5.5	5.9	7.1	116°	120°	102°
1/4	8W	●	●	●	●	●	2.4	1.3		2.6	3.6	4.4	4.8	2.8	6.6	7.2	7.8	8.4	10.1	116°	120°	103°
	10W	●	●	●	●	●	2.8	1.3		3.3	4.5	5.5	6.0	7.2	8.2	9.1	9.8	10.8	12.7	116°	120°	103°
	12W	●	●	●	●	●	3.2	1.3		3.9	3.9	6.5	7.3	8.7	9.8	10.9	11.8	12.7	15.2	117°	120°	103°
	14W	●	●	●	●	●	3.6	1.6		4.6	6.2	7.6	8.5	10.1	11.5	12.7	13.7	14.8	17.7	117°	120°	103°
3/8	17W	●	●	●	●	●	4.0	1.6		5.6	7.6	9.3	10.3	12.3	13.9	15.4	16.7	18.0	21.6	117°	120°	103°
	20W	●	●	●	●	●	4.4	2.4		6.6	8.9	10.9	12.1	14.5	16.5	18.1	19.6	21.2	25.3	117°	120°	104°
	24W	●	●	●	●	●	4.8	2.4		7.9	10.7	13.1	14.5	17.3	19.7	22	24	25.9	31.0	117°	120°	104°
	27W	●	●	●	●	●	5.2	2.8		8.9	12.0	14.7	16.3	19.5	22	24	26	28.1	33.6	117°	120°	106°
	30W	●	●	●	●	●	5.6	2.8		9.9	13.4	16.4	18.1	22	25	27	29	31.3	37.4	117°	120°	108°
1/2	35W	●	●	●	●	●	6.0	3.2		11.5	15.6	19.1	21	25	29	32	34	36.7	43.9	117°	120°	108°
	40W	●	●	●	●	●	6.4	3.2		13.1	17.8	21.8	24	29	33	36	39	42.1	50.3	117°	120°	108°
	45W	●	●	●	●	●	6.4	3.6		14.8	20	24.5	27	33	37	41	44	47.5	56.8	117°	120°	110°
	50W	●	●	●	●	●	6.7	4.0		16.4	22	26.9	30	36	41	45	49	52.9	63.3	117°	120°	112°

common application

- Washing and drenching, exhaust gas scrubbing and cooling to remove dust and other burnt offspring.
- Quenching and cooling coke, primary metal and other material, burst apart and defoaming of foaming material, spray in chemical reaction.
- Dust control when transacting chunk ore, coal, limestone, sand and carpolite.
- Dip the tinder and container to prevent a fire and put out a fire.

ordering info

**BB 1/8—SS 2.8W**

Single nozzle type    Inlet size    Material code    Capacity size

quadrate standard angle series



single type(BB)

BB quadrate standard angle series spray nozzles feature a solid cone spray pattern with a foursquare area and spray angles between 40° to 105°.

They produce a uniform distribution of medium to large sized drops over a wide range of flow rates and pressures. Their uniform spray distribution result from a unique vane design, large and easy flow passages and superior spray control design. They are ideal for applications requiring complete coverage to a certain area.

ordering info

**BBF 1/8—SS 3.6**

Single nozzle type    Inlet size    Material code    Capacity size



fission type(BBG)

standard angel series

Nozzle Inlet Conn. NPT or BSPT	Nozzle Type		Capacity Size	Rated Orifice Dia. (mm)	Max. Hole Dia. (mm)	Capacity (L/min)											Spray angle		
	single type	fission type				0.3 bar	0.5 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	7 bar	10 bar	0.5 bar	1.5 bar	6 bar	
1/8	●	●	3.6	1.6	1.3	0.93	1.2	1.6	2.2	2.7	3.1	3.4	3.7	4.0	4.7	40°	52°	47°	
	●	●	4.8	1.9	1.3	1.2	1.6	2.2	3.0	3.6	4.1	4.5	4.9	5.3	6.2	48°	63°	57°	
	●	●	6	2.4	1.3	1.5	2.0	2.7	3.7	4.5	5.1	5.6	6.1	6.6	7.8	60°	66°	60°	
1/4	●	●	10	2.8	1.6	2.6	3.3	4.5	6.2	7.4	8.5	9.4	10.2	11.0	13.0	62°	67°	61°	
	●	●	12	3.2	1.6	3.1	3.9	5.4	7.4	8.9	10.2	11.3	12.3	13.2	15.5	70°	75°	68°	
	●	●	14.5	3.9	1.6	3.7	4.7	6.5	9.0	10.8	12.3	13.7	14.8	15.9	18.8	78°	82°	75°	
3/8	●	●	18	4.0	2.4	4.6	5.9	8.1	11.1	13.4	15.3	17.0	18.4	19.8	23	71°	75°	68°	
	●	●	29	5.6	3.2	7.5	9.5	13.0	17.9	22	25	27	30	32	38	71°	75°	68°	
1/2	●	●	36	6.4	3.2	9.3	11.8	16.2	22	27	31	34	37	40	47	78°	82°	75°	
	●	●	50	6.7	4.4	12.9	16.3	22	31	37	42	47	51	55	65	71°	75°	68°	
3/4	●	●	106	9.9	5.6	27	35	48	65	79	90	100	109	117	137	78°	80°	73°	
	●	●	177	12.7	6.4	46	58	79	109	132	150	167	181	195	230	78°	80°	73°	
1-1/4	●	●	230	14.3	8.7	59	75	103	142	171	195	220	235	255	300	73°	77°	70°	
	●	●	290	15.5	11.1	75	95	130	179	215	250	275	300	320	375	66°	70°	64°	
2	●	●	360	17.4	11.1	93	118	162	225	270	305	340	370	395	470	70°	74°	67°	
	●	●	480	21.0	11.1	124	157	215	300	360	410	455	495	530	630	79°	82°	74°	
2-1/2	●	●	490	19.8	14.3	126	160	220	305	365	420	465	510	540	640	62°	67°	61°	
	●	●	590	22.2	14.3	152	193	265	365	440	510	560	610	650	770	75°	78°	71°	
5	●	●	950	28.6	17.5	245	310	430	590	710	810	900	980	1050	1230	81°	84°	76°	
	●	●	2980	47.6	28.6	770	980	1340	1840	2220	2540	2810	3060	3280	3860	89°	91°	83°	
6	●	●	5690	81.8	44.5	1470	1860	2560	3520	4240	4840	5360	5830	6260	7370	102°	105°	95°	

common application

- Cooling and quenching
- Products washing
- Air and gas washer
- Scrubbing machine
- Dust control
- Fire prevention



Full wide angle nozzle



single type(BBF)

Wide angle quadrate shaped spray nozzle feature a full cone spray pattern with square impact area and spray angles of 93°-115°, small-to medium-sized drops.

Unique vane design provides uniform spray distribution.

They are idea choicel for installations requiring uniform coverage of rectangular or square areas. Size1-1/4 " and larger are case-type nozzles with removable vanes.

common application

- Air and gas washers
- Cooling /quenching
- Dust control
- Fire suppression /prevention
- Liquor washers
- Product washing /rinsing
- Scrubbers

Performance data

Nozzle Inlet Conn. NPT or BSPT	Nozzle Type		Capacity Size	Rated Orifice Dia. (mm)	Max. Hole Dia. (mm)	Capacity (L/min)												Spray angle		
	single type	fusion type				0.3 bar	0.5 bar	0.7 bar	1 bar	2 bar	3 bar	4 bar	5 bar	6 bar	0.5 bar	1.5 bar	6 bar			
1/8	●	●	2.8W	1.6	1.0			1.1	1.2	1.7	2.0	2.3	2.5	2.7			120°	102°		
	●	●	4.3W	2.0	1.0			1.6	1.9	2.6	3.1	3.5	3.9	4.2			120°	102°		
	●	●	5.6W	2.4	1.0		1.8	2.1	2.5	3.4	4.0	4.6	5.1	5.5			120°	102°		
	●	●	8W	2.4	1.3		2.6	3.0	3.6	4.8	5.8	6.6	7.2	7.8			120°	102°		
1/4	●	●	10W	2.8	1.3	2.6	3.3	3.8	4.5	6.0	7.2	8.2	9.1	9.8	112°		120°	103°		
	●	●	12W	3.2	1.3	3.1	3.9	4.6	5.3	7.3	8.7	8.7	10.9	11.8	114°		120°	103°		
	●	●	14W	3.6	1.6	3.7	4.6	5.3	6.2	8.5	10.1	10.1	12.7	13.7	99°		120°	103°		
	●	●	14W	3.6	1.6	3.7	4.6	5.3	6.2	8.5	10.1	10.1	12.7	13.7	99°		101°	93°		
3/8	●	●	17W	4.0	1.6	4.5	5.6	6.5	7.6	10.3	12.3	13.9	15.4	16.7	114°		120°	103°		
	●	●	17W	4.0	1.6	4.5	5.6	6.5	7.6	10.3	12.3	13.9	15.4	16.7	99°		101°	93°		
	●	●	20W	4.4	2.4	5.2	6.6	6.6	8.9	12.1	14.5	16.5	18.1	19.6	114°		120°	104°		
	●	●	20W	4.4	2.4	5.2	6.6	6.6	8.9	12.1	14.5	16.5	18.1	19.6	104°		110°	94°		
	●	●	24W	4.8	2.4	6.3	7.9	7.9	10.7	14.5	17.3	19.7	22	24	114°		120°	104°		
	●	●	24W	4.8	2.4	6.3	7.9	7.9	10.7	14.5	17.3	19.7	22	24	104°		110°	94°		
	●	●	27W	5.2	2.8	7.1	8.9	8.9	12.0	16.3	19.5	22	24	26	114°		120°	106°		
	●	●	27W	5.2	2.8	7.1	8.9	8.9	12.0	16.3	19.5	22	24	26	104°		110°	98°		
1/2	●	●	30W	5.6	2.8	7.9	9.9	11.4	13.4	18.1	22	25	27	29	114°		120°	108°		
	●	●	30W	5.6	2.8	7.9	9.9	11.4	13.4	18.1	22	25	27	29	104°		110°	102°		
	●	●	35W	6.0	3.2	9.2	11.5	13.3	15.6	21	25	29	32	34	114°		120°	108°		
	●	●	35W	6.0	3.2	9.2	11.5	13.3	15.6	21	25	29	32	34	104°		110°	102°		
	●	●	40W	6.4	3.2	10.5	13.1	15.2	17.8	24	29	33	36	39	114°		120°	108°		
	●	●	40W	6.4	3.2	10.5	13.1	15.2	17.8	24	29	33	36	39	104°		110°	102°		
	●	●	45W	6.4	3.6	11.8	14.8	17.1	20	27	33	37	41	44	114°		120°	110°		
	●	●	45W	6.4	3.6	11.8	14.8	17.1	20	27	33	37	41	44	104°		110°	102°		
3/4	●	●	50W	6.7	4.0	13.1	16.4	19.1	22	30	36	41	45	49	114°		120°	112°		
	●	●	50W	6.7	4.0	13.1	16.4	19.1	22	30	36	41	45	49	104°		110°	102°		
	●	●	6W	9.9	4.4	18.4	23	27	31	42	51	58	64	69	115°		120°	112°		
1	●	●	71W	9.9	4.4	18.4	23	27	31	42	51	58	64	69	105°		110°	102°		
	●	●	11W	13.1	5.6	34	42	49	57	78	93	106	116	126	117°		120°	117°		
1	●	●	130W	13.1	5.6	34	42	49	57	78	93	106	116	126	107°		110°	107°		

ordering info

**BBF 1/8 — SS 2.8W**

