

# Flat fan nozzle with increased spray depth and dovetail alignment

## Series 600.280

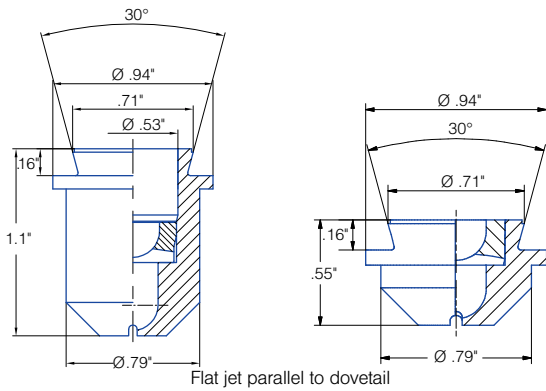
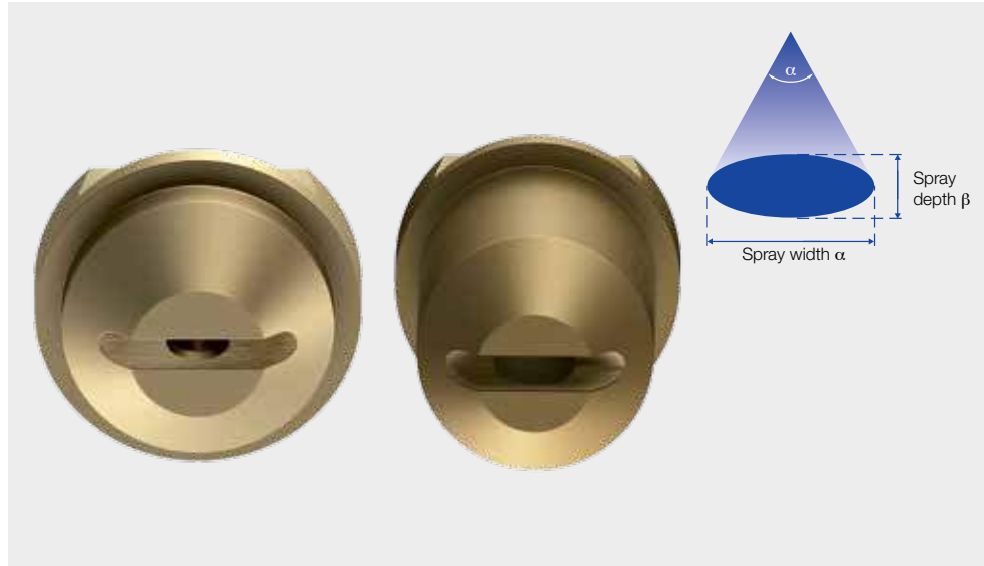
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Assembly with 3/4" retaining nut. Self-aligning jet with dovetail design with 0° offset angle secures correct spray position for optimal strand surface quality and easy maintenance.

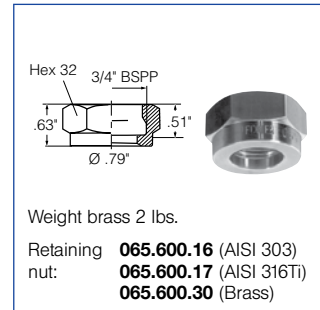
- Typically with trapezoid liquid distribution
- Available in .55" short and in 1.1" long version


### Applications:


Single and multi nozzle arrangements in segments for water only secondary cooling in bloom and slab casters. Also suitable for vertical spray positions such as narrow side cooling in slab casters or vertical spray cooling in bloom casters.



### Accessories



Spray angle 	Ordering no.		Spray depth angle [°]	Length [in]	Narrowest cross section [in]	Flow Rate (Gallons Per Minute)						
	Type	Mat. no.				10 psi	20 psi	liters per minute 2 bar	40 psi	80 psi	100 psi	
		16 303 SS										30 Brass
60°	600.280.xx.34	○	○	12	1.1	.12	2.66	3.68	16.60	5.10	7.07	7.85
	600.280.xx.32	○	○	15	1.1	.12	2.66	3.68	16.60	5.10	7.07	7.85
	600.280.xx.28	○	○	20	1.1	.1	1.89	2.62	11.80	3.63	5.02	5.58
	600.280.xx.29	○	○	20	1.1	.12	2.61	3.62	16.30	5.01	6.94	7.71
	600.280.xx.30	○	○	20	1.1	.14	3.32	4.59	20.70	6.36	8.81	9.79
	600.280.xx.33	○	○	25	1.1	.16	3.56	4.93	22.20	6.82	9.45	10.49
	600.280.xx.83	○	○	40	1.1	.04	0.29	0.40	1.80	0.55	0.77	0.85
	600.280.xx.12	○	○	40	1.1	.04	0.42	0.58	2.60	0.80	1.11	1.23
	600.280.xx.11	○	○	40	1.1	.04	0.46	0.64	2.90	0.89	1.23	1.37
	600.280.xx.22	○	○	40	1.1	.08	1.04	1.44	6.50	2.00	2.77	3.07
600.280.xx.21	○	○	40	1.1	.1	1.36	1.89	8.50	2.61	3.62	4.02	
70°	600.280.xx.17	○	○	40	1.1	.04	0.29	0.40	1.80	0.55	0.77	0.85
	600.280.xx.15	○	○	40	1.1	.04	0.42	0.58	2.60	0.80	1.11	1.23
	600.280.xx.84	○	○	40	1.1	.07	0.69	0.95	4.30	1.32	1.83	2.03
75°	600.280.xx.82	○	○	15	1.1	.07	1.27	1.75	7.90	2.43	3.36	3.73
	600.280.xx.16	○	○	15	1.1	.07	1.36	1.89	8.50	2.61	3.62	4.02
	600.280.xx.19	○	○	30	1.1	.06	0.74	1.02	4.60	1.41	1.96	2.17
	600.280.xx.26	○	○	30	1.1	.07	0.91	1.26	5.70	1.75	2.43	2.69

Spray angle 	Ordering no.		Spray depth angle [°]	Length [in]	Narrowest cross section [in]	Flow Rate (Gallons Per Minute)						
	Type	Mat. no.				10 psi	20 psi	liters per minute 2 bar	40 psi	80 psi	100 psi	
		16 303 SS										30 Brass
80°	600.280.xx.64	○	○	20	1.1	.06	0.45	0.62	2.80	0.86	1.19	1.32
	600.280.xx.74	○	○	20	1.1	.06	0.50	0.69	3.10	0.95	1.32	1.47
	600.280.xx.51	○	○	25	1.1	.06	2.23	3.08	13.90	4.27	5.92	6.57
	600.280.xx.42	○	○	30	.55	.04	0.50	0.69	3.10	0.95	1.32	1.47
90°	600.280.xx.77	○	○	20	1.1	.04	0.99	1.38	6.20	1.91	2.64	2.93
	600.280.xx.14	○	○	20	1.1	.04	1.09	1.51	6.80	2.09	2.89	3.21
	600.280.xx.08	○	○	20	1.1	.09	1.89	2.62	11.80	3.63	5.02	5.58
	600.280.xx.03	○	○	20	1.1	.08	2.13	2.95	13.30	4.09	5.66	6.29
	600.280.xx.05	○	○	20	1.1	.10	2.58	3.57	16.10	4.95	6.85	7.61
	600.280.xx.09	○	○	20	1.1	.08	2.61	3.62	16.30	5.01	6.94	7.71
	600.280.xx.10	○	○	20	1.1	.11	3.32	4.59	20.70	6.36	8.81	9.79
	600.280.xx.62	○	○	27	1.1	.06	1.03	1.42	6.40	1.97	2.72	3.03
	600.280.xx.69	○	○	27	1.1	.09	1.55	2.15	9.70	2.98	4.13	4.59
	600.280.xx.68	○	○	27	1.1	.12	1.89	2.62	11.80	3.63	5.02	5.58
	600.280.xx.72	○	○	27	1.1	.11	2.87	3.97	17.90	5.50	7.62	8.46
	600.280.xx.76	○	○	27	1.1	.11	3.35	4.64	20.90	6.42	8.90	9.88
	600.280.xx.13	○	○	30	.55	.04	0.29	0.40	1.80	0.55	0.77	0.85
	600.280.xx.97	○	○	30	1.1	.05	0.43	0.60	2.70	0.83	1.15	1.28
	600.280.xx.92	○	○	30	.55	.05	0.43	0.60	2.70	0.83	1.15	1.28
	600.280.xx.41	○	○	30	.55	.06	0.74	1.02	4.60	1.41	1.96	2.17
	600.280.xx.95	○	○	30	1.1	.07	0.74	1.02	4.60	1.41	1.96	2.17
	600.280.xx.90	○	○	30	.55	.07	0.75	1.04	4.70	1.44	2.00	2.22
	600.280.xx.27	○	○	30	1.1	.07	1.12	1.55	7.00	2.15	2.98	3.31
	600.280.xx.63	○	○	30	1.1	.09	1.30	1.80	8.10	2.49	3.45	3.83
	600.280.xx.45	○	○	30	1.1	.09	1.83	2.53	11.40	3.50	4.85	5.39
	600.280.xx.66	○	○	30	1.1	.08	2.58	3.57	16.10	4.95	6.85	7.61
	600.280.xx.24	○	○	30	1.6	.08	2.58	3.57	16.10	4.95	6.85	7.61
	600.280.xx.73	○	○	35	1.1	.09	1.68	2.33	10.50	3.23	4.47	4.96
	600.280.xx.81	○	○	40	1.1	.07	0.43	0.60	2.70	0.83	1.15	1.28
	600.280.xx.79	○	○	40	1.1	.06	0.67	0.93	4.20	1.29	1.79	1.99
	600.280.xx.80	○	○	40	1.1	.07	0.86	1.20	5.40	1.66	2.30	2.55
	600.280.xx.78	○	○	40	1.1	.10	1.62	2.24	10.10	3.10	4.30	4.77
100°	600.280.xx.53	○	○	15	2.2	.10	2.63	3.64	16.40	5.04	6.98	7.75
	600.280.xx.44	○	○	15	1.1	.11	4.45	6.17	27.80	8.54	11.83	13.14
	600.280.xx.85	○	○	25	1.1	.06	0.91	1.26	5.70	1.75	2.43	2.69
	600.280.xx.50	○	○	25	1.1	.06	1.09	1.51	6.80	2.09	2.89	3.21
	600.280.xx.07	○	○	25	1.1	.09	2.58	3.57	16.10	4.95	6.85	7.61
	600.280.xx.88	○	○	30	.55	.05	0.43	0.60	2.70	0.83	1.15	1.28
	600.280.xx.58	○	○	30	.55	.07	0.77	1.06	4.80	1.48	2.04	2.27
	600.280.xx.57	○	○	30	.55	.07	1.07	1.49	6.70	2.06	2.85	3.17
	600.280.xx.40	○	○	30	1.1	.06	1.12	1.55	7.00	2.15	2.98	3.31
	600.280.xx.56	○	○	30	.55	.07	1.36	1.89	8.50	2.61	3.62	4.02
	600.280.xx.55	○	○	30	.55	.10	1.65	2.29	10.30	3.17	4.38	4.87
	600.280.xx.36	○	○	30	.55	.10	1.99	2.75	12.40	3.81	5.28	5.86
	600.280.xx.59	○	○	40	1.1	.10	1.75	2.42	10.90	3.35	4.64	5.15
	600.280.xx.35	○	○	40	1.1	.10	1.95	2.71	12.20	3.75	5.19	5.77
	600.280.xx.37	○	○	40	1.1	.11	3.14	4.35	19.60	6.02	8.34	9.27
	600.280.xx.23	○	○	50	1.1	.07	0.42	0.58	2.60	0.80	1.11	1.23
	600.280.xx.31	○	○	50	1.1	.05	0.72	1.00	4.50	1.38	1.92	2.13
	105°	600.280.xx.02	○	○	23	.55	.04	0.74	1.02	4.60	1.41	1.96
600.280.xx.00		○	○	23	.55	.05	1.04	1.44	6.50	2.00	2.77	3.07
600.280.xx.01		○	○	23	.55	.06	1.36	1.89	8.50	2.61	3.62	4.02
600.280.xx.04		○	○	23	.55	.05	1.67	2.31	10.40	3.20	4.43	4.92
600.280.xx.65		○	○	27	1.1	.04	0.45	0.62	2.80	0.86	1.19	1.32
600.280.xx.67		○	○	27	1.1	.06	0.64	0.89	4.00	1.23	1.70	1.89
112°	600.280.xx.43	○	○	30	1.1	.09	2.07	2.86	12.90	3.96	5.49	6.10

Conversion formula for the above series:  $V_2 = V_1 \sqrt{\frac{P_2}{P_1}}$

Materials: 30 (Brass), 16 (stainless steel) on request.  
Other nozzle types on request.

