



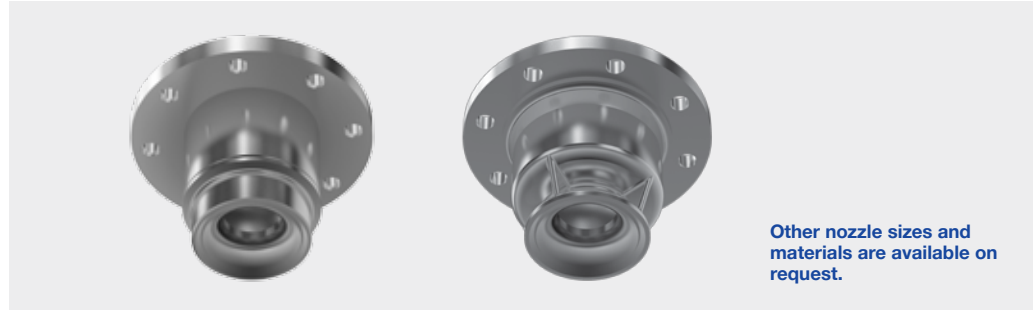
# Axial-flow full cone nozzles Series 421



**Even full cone distribution,  
high flow rates.**

**Applications:**

Scrubber, for even surface irrigation, cooling and cleaning of gases, water recooling, column irrigation and for improving chemical reactions via surface enlargement.



**Other nozzle sizes and materials are available on request.**

Spray angle*	Ordering no.	Mat. no.			B Ø [in]	E Ø [in]	Flow Rate (Gallons Per Minute)						
		Type	05.84	1Y.84			53.00	4 psi	7 psi	14.5 psi	Liters per minute 2 bar	72 psi	145 psi
			GG	316L SS			PP						
60°	421.564	○	-	○	1.46	0.47	99	121	160	800	305	402	
	421.604	○	-	○	1.54	0.55	124	152	200	1000	381	503	
	421.624	○	○	○	1.61	0.51	155	190	250	1250	476	629	
	421.644	○	○	○	1.93	0.63	198	243	320	1600	610	805	
	421.664	○	○	○	2.20	0.63	247	304	400	2000	762	1006	
	421.684	○	○	○	2.28	0.83	309	379	501	2500	953	1257	
	421.704	○	○	○	2.56	0.94	390	478	631	3150	1201	1584	
	421.724	-	○	○	2.83	1.18	495	607	801	4000	1525	2012	
	421.744	-	○	○	3.19	1.34	618	759	1001	5000	1906	2514	
	421.764	-	○	○	3.46	1.38	779	956	1261	6300	2401	3168	
	421.784	-	○	○	3.90	1.54	990	1214	1602	8000	3049	4023	
	421.804	-	○	-	4.41	1.65	1237	1517	2002	10000	3811	5029	
421.824	-	○	-	4.92	2.05	1546	1896	2503	12500	4764	6286		
90°	421.566	○	-	○	1.46	0.59	99	121	160	800	305	402	
	421.606	○	-	○	1.54	0.59	124	152	200	1000	381	503	
	421.626	○	○	○	1.69	0.75	155	190	250	1250	476	629	
	421.646	○	○	○	2.09	0.87	198	243	320	1600	610	805	
	421.666	○	○	○	2.20	0.94	247	304	400	2000	762	1006	
	421.686	○	○	○	2.32	1.10	309	379	501	2500	953	1257	
	421.706	○	○	○	2.60	1.26	390	4790	631	3150	1201	1584	
	421.726	-	○	○	2.83	1.38	495	607	801	4000	1525	2012	
	421.746	-	○	○	3.19	1.57	618	759	1001	5000	1906	2514	
	421.766	-	○	○	3.66	1.54	779	956	1261	6300	2401	3168	
	421.786	-	○	○	3.90	1.73	990	1214	1602	8000	3049	4023	
	421.806	-	○	○	4.84	2.09	1237	1517	2002	10000	3811	5029	
421.826	-	○	-	4.92	2.13	1543	1896	2502	12500	4764	6286		
120°	421.568	○	○	○	1.42	0.59	99	121	160	800	305	402	
	421.608	○	○	○	1.61	0.59	124	152	200	1000	381	503	
	421.628	○	○	○	1.69	0.75	155	190	250	1250	476	629	
	421.648	○	○	○	2.09	0.87	198	243	320	1600	610	805	
	421.668	○	○	○	2.17	0.94	247	303	400	2000	762	1006	
	421.688	○	○	○	2.32	1.10	309	379	501	2500	953	1257	
	421.708	○	○	○	2.60	1.26	390	478	631	3150	1201	1584	
	421.728	-	○	○	2.83	1.38	495	607	801	4000	1525	2012	
	421.748	-	○	○	3.19	1.57	618	759	1001	5000	1906	2514	
	421.768	-	○	○	3.46	1.54	779	956	1261	6300	2401	3168	
	421.788	-	○	○	3.90	1.73	990	1214	1602	8000	3049	4023	
	421.808	-	○	○	4.25	2.09	1237	1517	2002	10000	3811	5029	
421.828	-	○	○	4.76	2.13	1546	1896	253	12500	4764	6286		

B = bore diameter · E = narrowest free cross section

\* Spray angle at p = 30 psi



# Axial-flow full cone nozzles Series 421

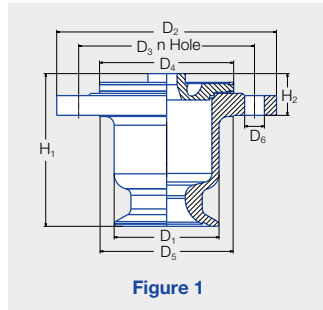


Figure 1

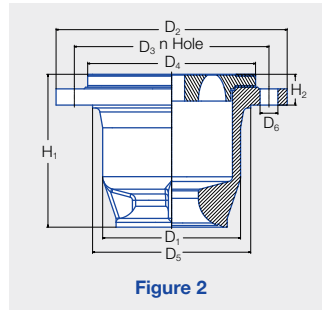


Figure 2

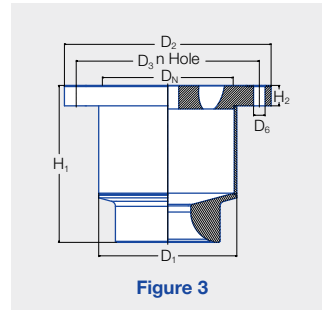


Figure 3

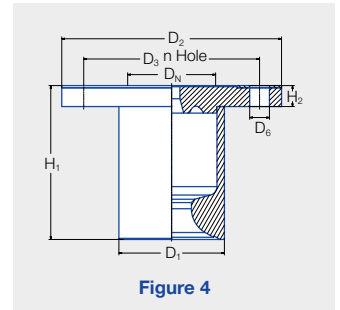



Figure 4

Spray angle 	Type	Mat. no.	Fig.	Dimensions [mm]								Flange hole	
				H <sub>1</sub>	H <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>N</sub>	Number	D <sub>6</sub>
60°-90° 120° 120° 60°-120°	<b>421.56x/ 421.60x</b>	05.84	1	134	39	96	200	160	122	121	80	8	18
		05.84	1	140	39	96	200	160	122	121	80	8	18
		1Y.84	3	140	19	96	200	160	-	-	80	8	18
		53.00	4	131	44	99	200	160	-	-	80	8	18
60°-120°	<b>421.62x</b>	05.84	1	156	28	113	220	180	158	141	100	8	18
		1Y.84	3	156	20	108	220	180	-	-	100	8	18
		53.00	4	156	53	117	220	180	-	-	100	8	18
		05.84	2	175	42	140	250	210	188	166	125	8	18
60°-90° 120° 60°-120° 60°-120°	<b>421.64x/ 421.66x</b>	05.84	2	175	42	140	250	210	188	166	125	8	18
		05.84	2	175	29	140	250	210	188	166	125	8	18
		1Y.84	3	175	19	135	250	210	-	-	125	8	18
		53.00	4	175	57	141	250	210	-	-	125	8	18
60°-120°	<b>421.68x/ 421.70x</b>	05.84	2	186	38	170	285	240	207	195	150	8	22
		1Y.84	3	186	27	160	285	240	-	-	150	8	22
		53.00	4	186	51	171	285	240	-	-	150	8	23
		1Y.84	3	250	33	214	340	295	-	-	200	8	22
60°-120°	<b>421.72x/ 421.74x</b>	53.00	4	250	50	225	340	295	-	-	200	8	23
		1Y.84	3	300	39	264	395	350	-	-	250	12	22
60°-120°	<b>421.76x/ 421.78x</b>	53.00	4	300	53	280	395	350	-	-	250	12	23
		1Y.84	3	367	49	315	445	400	-	-	300	12	22
60°-120°	<b>421.80x/ 421.82x</b>	53.00	4	367	57	328	445	400	-	360	300	12	23
		1Y.84	3	367	49	315	445	400	-	-	300	12	22

**Example**    Type    +    Material no.    =    Ordering no.  
for ordering: 421.564    +    05.84    =    421.564.05.84

Conversion formula for the above series:  $\dot{V}_2 = \dot{V}_1 * \left(\frac{p_2}{p_1}\right)^{0.4}$