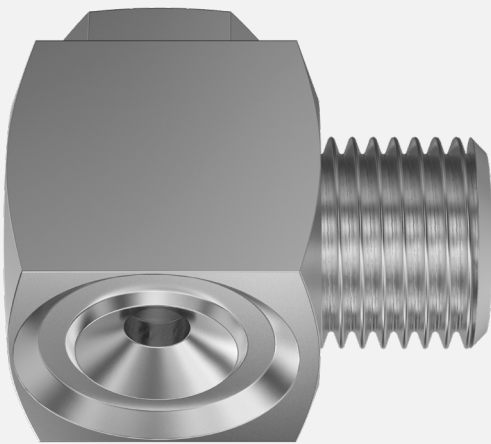


➤➤ TANGENTIAL FULL CONE NOZZLES

Series 422/423



Vaneless full cone nozzle

- Biggest free passage among all commercially available full cone nozzles
- Vaneless design, no swirl insert
- Even spray distribution
- Small insertion profile for injectors

Imperial dimensions

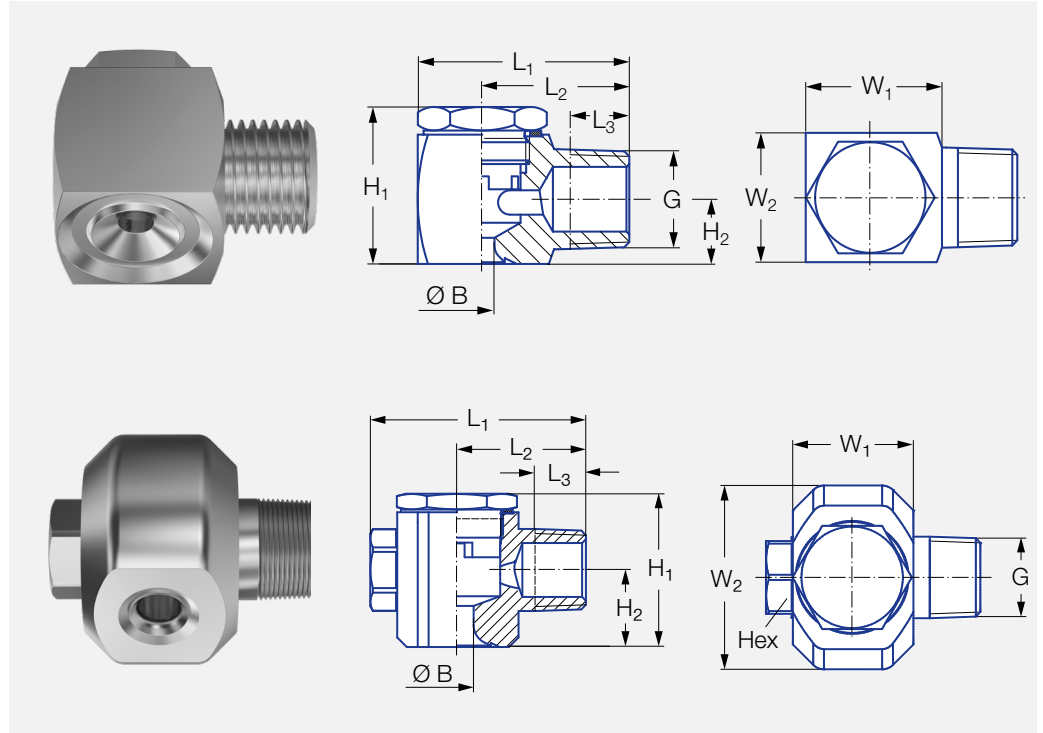
Series 422/423

Applications:

- Chemical dosing / injection
- Retractable injectors
- Vacuum distillation wash
- Heat exchange wash
- Absorbers
- Strippers
- Separation
- Coker quench sprays
- Entrainment sensitive applications

Features:

- Vaneless design, no swirl insert
- Largest free passage among all full cone nozzle designs commercially available
- Even spray distribution
- Small insertion profile for injectors
- Wide array of nozzle sizes
- Available in most alloys
- Consistent performance due to constant R value of 0.5 at all pressure



Material	Material no.
316/316L SS	1Y
310 SS	1N
317L	C3
321 SS	15
Hastelloy® C4	23
Hastelloy® C-276	24
Titanium GR2	25
Brass	30

For additional materials please contact your local Lechler representative.

Connection Size	Thread	
	Male Metric	Male NPT
1/4"	CC	BC
3/8"	CE	BE
1/2"	CG	BG
3/4"	CK	BK
1"	CM	BM
1 1/4"	CP	BP
1 1/2"	CR	BR
2"	CV	BV
2 1/2"	CY	BY
3"	NA	MA

Conversion formula for this series: $\dot{V} = K \cdot p^R$



Spray angle	Type	Thread	Orifice size [in]	Free passage* [in]	V water [gal/min]								K	R	Min. insertion Ø [in]
					p [psi]										
					5	10	20	l/min at 2 bar	40	60	80	100			
30°	422.882	1/2"	0.193	0.193	1.76	2.48	3.51	16.00	4.96	6.08	7.02	7.85	0.787	0.5	2.147
	423.082	3/4"	0.323	0.323	5.49	7.76	10.97	50.00	15.51	19.00	21.94	24.53	2.455	0.5	3.636
	423.202	1 1/4"	0.472	0.472	10.97	15.51	21.94	100.00	31.03	38.00	43.88	49.06	4.906	0.5	4.925
60°	422.364	1/4"	0.045	0.043	0.07	0.09	0.13	0.60	0.19	0.23	0.26	0.29	0.031	0.5	1.016
	422.484	1/4"	0.071	0.071	0.18	0.25	0.35	1.60	0.50	0.61	0.70	0.78	0.080	0.5	1.116
	422.524	3/8"	0.079	0.079	0.22	0.31	0.44	2.00	0.62	0.76	0.88	0.98	0.098	0.5	1.004
	422.564	3/8"	0.089	0.089	0.27	0.39	0.55	2.50	0.78	0.95	1.10	1.23	0.121	0.5	1.371
	422.644	3/8"	0.118	0.118	0.44	0.62	0.88	4.00	1.24	1.52	1.76	1.96	0.197	0.5	1.371
	422.724	3/8"	0.142	0.142	0.69	0.98	1.38	6.30	1.95	2.39	2.76	3.09	0.309	0.5	1.371
	422.784	1/2"	0.163	0.163	0.99	1.40	1.97	9.00	2.79	3.42	3.95	4.42	0.443	0.5	1.366
	422.884	1/2"	0.252	0.252	1.76	2.48	3.51	16.00	4.96	6.08	7.02	7.85	0.797	0.5	1.921
	423.124	3/4"	0.441	0.441	6.91	9.77	13.82	63.00	19.55	23.94	27.65	30.91	3.090	0.5	2.710
	423.174	1"	0.500	0.500	9.32	13.19	18.65	85.00	26.37	32.30	37.30	41.70	4.169	0.5	3.265
423.414	2"	0.969	0.969	36.75	51.97	73.50	335.00	103.95	127.31	147.00	164.30	16.435	0.5	7.359	
75°	423.065	3/4"	0.425	0.417	4.94	6.98	9.87	45.00	13.96	17.10	19.75	22.08	2.209	0.5	2.732
90°	422.286	1/4"	0.027	0.027	0.03	0.05	0.07	0.25	0.09	0.11	0.13	0.15	0.013	0.5	0.995
	422.326	1/4"	0.033	0.031	0.04	0.06	0.09	0.40	0.12	0.15	0.18	0.20	0.018	0.5	0.995
	422.346	1/4"	0.037	0.035	0.05	0.08	0.11	0.50	0.16	0.19	0.22	0.25	0.022	0.5	0.995
	422.366	1/4"	0.043	0.043	0.07	0.09	0.13	0.60	0.19	0.23	0.26	0.29	0.031	0.5	0.995
	422.406	1/4"	0.059	0.057	0.11	0.16	0.22	1.00	0.31	0.38	0.44	0.49	0.049	0.5	0.995
	422.446	1/4"	0.065	0.063	0.14	0.20	0.29	1.30	0.40	0.49	0.57	0.64	0.063	0.5	0.995
	422.486	1/4"	0.075	0.071	0.18	0.25	0.35	1.60	0.50	0.61	0.70	0.78	0.080	0.5	0.995
	422.506	1/4"	0.079	0.079	0.20	0.28	0.39	1.80	0.56	0.68	0.79	0.88	0.089	0.5	0.995
	422.526	1/4"	0.083	0.083	0.22	0.31	0.44	2.00	0.62	0.76	0.88	0.98	0.098	0.5	0.995
	422.566	1/4"	0.091	0.087	0.27	0.39	0.55	2.50	0.78	0.95	1.10	1.23	0.121	0.5	0.954
	422.606	3/8"	0.102	0.099	0.35	0.50	0.70	3.15	0.99	1.22	1.40	1.57	0.157	0.5	1.350
	422.646	3/8"	0.118	0.114	0.44	0.62	0.88	4.00	1.24	1.52	1.76	1.96	0.197	0.5	1.350
	422.686	3/8"	0.130	0.126	0.55	0.78	1.10	5.00	1.60	1.90	2.20	2.50	0.246	0.5	1.303
	422.706	3/8"	0.138	0.134	0.61	0.87	1.23	5.60	1.74	2.13	2.46	2.75	0.273	0.5	1.361
	422.726	3/8"	0.146	0.142	0.69	0.98	1.38	6.30	1.95	2.39	2.76	3.09	0.309	0.5	1.303
	422.766	3/8"	0.163	0.161	0.88	1.24	1.76	8.00	2.48	3.04	3.51	3.92	0.394	0.5	1.303
	422.786	3/8"	0.173	0.169	0.99	1.40	1.97	9.00	2.79	3.42	3.95	4.42	0.443	0.5	1.361
	422.806	3/8"	0.183	0.181	1.10	1.55	2.19	10.00	3.10	3.80	4.39	4.91	0.492	0.5	1.303
	422.846	3/8"	0.205	0.201	1.37	1.94	2.74	12.50	3.88	4.75	5.49	6.13	0.613	0.5	1.303
	422.886	3/8"	0.229	0.225	1.76	2.48	3.51	16.00	4.96	6.08	7.02	7.85	0.787	0.5	1.318
	422.926	1/2"	0.287	0.287	2.19	3.10	4.39	20.00	6.21	7.60	8.78	9.81	0.979	0.5	1.890
	422.966	1/2"	0.315	0.315	2.74	3.88	5.49	25.00	7.76	9.50	10.97	12.27	1.225	0.5	1.919
	423.006	1/2"	0.343	0.343	3.40	4.81	6.80	31.00	9.62	11.78	13.60	15.21	1.521	0.5	1.919
	423.046	3/4"	0.426	0.402	4.39	6.21	8.78	40.00	12.41	15.20	17.55	19.62	1.963	0.5	2.711
	423.086	3/4"	0.449	0.433	5.49	7.76	10.97	50.00	15.51	19.00	21.94	24.53	2.455	0.5	2.717
	423.126	3/4"	0.500	0.485	6.91	9.77	13.82	63.00	19.55	23.94	27.65	30.91	3.090	0.5	2.711
	423.146	1"	0.552	0.532	7.79	11.02	15.58	71.00	22.03	26.98	31.16	34.83	3.484	0.5	3.260
	423.206	1"	0.670	0.630	10.97	15.51	21.94	100.00	31.03	38.00	43.88	49.06	4.906	0.5	3.276
	423.286	1 1/4"	0.748	0.748	17.55	24.82	35.11	160.00	49.65	60.80	70.21	78.50	7.849	0.5	4.134
	423.406	2"	0.965	0.965	34.56	48.87	69.11	315.00	97.74	119.71	138.23	154.54	15.456	0.5	6.453
	423.486	2 1/2"	1.240	1.240	54.85	77.57	109.70	500.00	155.14	190.01	219.41	245.30	24.530	0.5	6.857
	423.526	3"	1.398	1.398	69.11	97.74	138.23	630.00	195.48	239.41	276.45	309.08	30.907	0.5	8.310

* The values given are for guidance only – please consult the data sheet if necessary

Ordering	Type	+	Material no.	+	Thread code	=	Ordering no.
example:	422. 846		1Y		BE		422. 846. 1Y. BE



LECHLER WORLDWIDE

