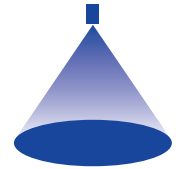


➤ Axial-flow full cone nozzles

Series 419 FreeFlow



Features:

- Non clogging due to very large free cross sections
- Very stable spray angle
- Uniform liquid distribution

Applications:

- Cleaning and washing processes
- Dust control
- Absorption
- Distillation

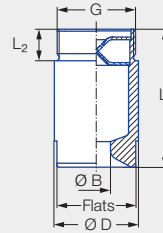


Figure 1

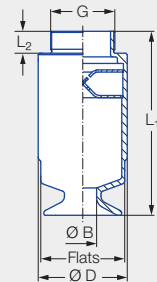


Figure 2

Series 419

Type	Code	Figure	G	Dimensions [mm]				Weight [kg]
				L ₁	L ₂	Ø D	Flats	
419.3xx	AV	1	2 BSPP	114.0	24.0	64.0	60	1.2
419.4xx	AV	2	2 BSPP	163.0	24.0	80.0	75	2.0
419.51x	AV	2	2 BSPP	199.0	24.0	102.0	95	3.7
419.51x	AY	2	2 1/2 BSPP	202.0	27.0	102.0	95	3.8
419.54x	AY	2	2 1/2 BSPP	202.0	27.0	102.0	95	3.8
419.57x	AY	2	2 1/2 BSPP	231.0	27.0	115.0	105	5.2
419.57x	LA	2	3 BSPP	233.0	30.0	115.0	105	5.2
419.6xx	LA	2	3 BSPP	252.0	30.0	122.0	115	5.4

Spray angle ¹	Ordering no.					Bore diameter B [mm]	Narrowest free cross sections Ø [mm]	V̇ water [l/min]					Spray diameter D [mm] (at p = 1 bar)	
	Type	Mat. no.	Code					p [bar]						
		1Y	Stainless steel 316L	2 BSPP	2 1/2 BSPP			3 BSPP	0.3	0.5	1.0	2.0		
90°	419.366	●	AV			18.0	17.5	117	143	189	249	360	1,200	2,200
	419.396	●	AV			20.5	17.5	140	172	227	300	432	1,200	2,200
	419.446	●	AV			23.0	20.5	187	230	303	400	577	1,200	2,200
	419.486	●	AV			28.0	20.5	234	287	379	500	721	1,200	2,200
	419.516	●	AV	AY		27.2	24.1	281	345	455	600	866	1,200	2,200
	419.546	●		AY		33.0	24.1	332	408	538	710	1,024	1,200	2,200
	419.576	●		AY	LA	34.0	27.2	398	488	644	850	1,226	1,200	2,200
	419.606	●			LA	37.5	30.1	468	574	758	1,000	1,443	1,200	2,200
	419.626	●			LA	43.0	30.1	585	718	947	1,250	1,803	1,200	2,200
120°	419.368	●	AV			20.5	17.4	117	143	189	249	360	1,660	2,900
	419.398	●	AV			23.5	17.4	140	172	227	300	432	1,660	2,900
	419.448	●	AV			24.5	20.5	187	230	303	400	577	1,660	2,900
	419.488	●	AV			29.5	20.5	234	287	379	500	721	1,660	2,900
	419.518	●	AV	AY		27.2	24.1	281	345	455	600	866	1,660	2,900
	419.548	●		AY		34.0	24.1	332	408	538	710	1,024	1,660	2,900
	419.578	●		AY	LA	34.0	28.6	398	488	644	850	1,226	1,660	2,900
	419.608	●			LA	38.0	32.2	468	574	758	1,000	1,443	1,660	2,900
	419.628	●			LA	43.5	32.2	585	718	947	1,250	1,803	1,660	2,900

¹ Spray angle at 1 bar.

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \left(\frac{p_2}{p_1}\right)^{0.4}$
(≤ 10 bar)

Ordering Type + Material no. + Code = Ordering no.
example: 419.366 + 1Y + AV = 419.366.1Y.AV

Assembly accessories can be found in Chapter 9 "Accessories".