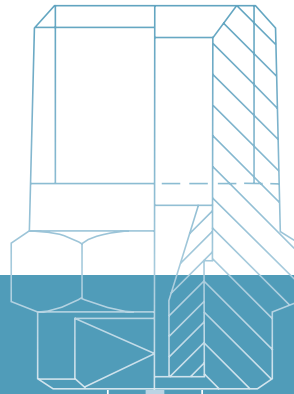


➤➤ SOLID STREAM NOZZLES



» SOLID STREAM NOZZLES OVERVIEW OF TYPES

Lechler solid stream nozzles are characterized by a stable and powerful jet stream, with low pressure and high pressure variants available. When concentrated spray power is required, e.g. in cleaning processes, the precision of Lechler solid stream nozzles enhances the productivity and performance for every installation.

Low pressure and high pressure solid stream nozzles



- Concentrated solid jet stream, minimal atomization
- High impact
- Suitable for cleaning and washing processes
- Injection
- Targeted cooling
- Pasteurization

International nozzle code

High pressure solid stream nozzle designations are governed by international standards. The two digits specify the flow rate in US gallons per minute at 40 psi. Our high pressure solid stream nozzles (series 546/548/550) are specified with this international nozzle code.

02





Flow rate in US gal/min at 40 psi

Conversion: Value · 3.22 = flow rate in l/min at 2 bar

example: 0.2 gal/min at 40 psi = 0.644 l/min at 2 bar

SOLID STREAM NOZZLES OVERVIEW OF SERIES



		Solid stream nozzles			
					
Series		544	546	548	550
Information on page		154	155	156	157
Pressure range	Low pressure	•			
	High pressure		•	•	•
Flow rate	Low ≤ 20 l/min	• (at p = 5 bar)	• (at p = 80 bar)	• (at p = 80 bar)	• (at p = 80 bar)
	High > 20 l/min		• (at p = 80 bar)	• (at p = 80 bar)	• (at p = 80 bar)
Nozzle material	Stainless steel	•	•	•	•
	Brass	•			
Nozzle connection		1/8 BSPT 1/4 BSPT	1/4 BSPT 1/4 NPT	Assembly with retaining nut 3/8 BSPP	1/8 BSPT 1/8 NPT

Low pressure solid stream nozzles

Series 544

Properties:

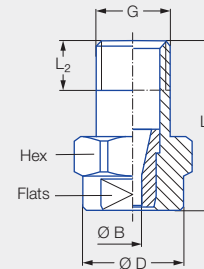
- Concentrated solid stream jet
- High impact

Applications:

- Cleaning and washing processes
- Injection
- Targeted cooling
- Pasteurization



Series 544



Code	G	Dimensions [mm]					Weight [g] (Brass)
		L ₁	L ₂	Ø D	Hex	Flats	
CA	1/8 BSPT	22.0	6.5	13.0	14	10	14.0
CC	1/4 BSPT	22.0	10.0	13.0	14	10	16.0

Ordering no.				Bore diameter B [mm]	V̇ water [l/min]										
Type	Mat. no.		Code		p [bar]										
	16	30	1/8 BSPT		1/4 BSPT	0.5	1.0	2.0	3.0	5.0	10.0	15.0	20.0	30.0	
	Stainless steel 303	Brass				0.5	1.0	2.0	3.0	5.0	10.0	15.0	20.0	30.0	
544.110	●	●	CA	CC	0.23	0.02	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.15	
544.160	●		CA	CC	0.33	0.03	0.04	0.06	0.07	0.09	0.13	0.16	0.18	0.22	
544.200	●	●	CA	CC	0.39	0.05	0.07	0.10	0.12	0.16	0.23	0.28	0.32	0.39	
544.240	●		CA	CC	0.50	0.08	0.11	0.16	0.19	0.25	0.35	0.43	0.50	0.61	
544.280	●		CA	CC	0.63	0.13	0.18	0.25	0.31	0.40	0.57	0.69	0.80	0.98	
544.320	●	●	CA	CC	0.80	0.20	0.28	0.40	0.49	0.63	0.89	1.09	1.26	1.54	
544.360	●	●	CA	CC	1.05	0.32	0.45	0.63	0.77	1.00	1.41	1.73	2.00	2.45	
544.400	●	●	CA	CC	1.30	0.50	0.71	1.00	1.22	1.58	2.23	2.74	3.16	3.87	
544.480	●	●	CA	CC	1.33	0.80	1.13	1.60	1.96	2.53	3.58	4.38	5.06	6.20	
544.560	●	●	CA	CC	1.65	1.25	1.77	2.50	3.06	3.95	5.59	6.84	7.90	9.68	
544.640	●	●	CA	CC	2.09	2.00	2.83	4.00	4.90	6.32	8.94	10.95	12.64	15.48	
544.720	●	●	CA	CC	2.66	3.15	4.45	6.30	7.71	9.96	14.09	17.25	19.92	24.40	
544.800	●	●	CA	CC	3.30	5.00	7.07	10.00	12.25	15.81	22.36	27.38	31.62	38.73	

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Material no. + Code = Ordering no.
example: 544.110 + 16 + CA = 544.110.16.CA



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

High pressure solid stream nozzles

Series 546

Properties:

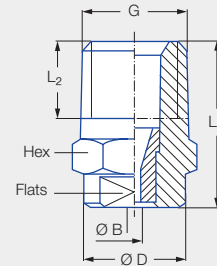
- Concentrated solid stream jet
- High impact
- Housing 303 SS, insert: Hardened stainless steel 420F

Applications:

- Cleaning and washing processes



Series 546



G	Dimensions [mm]					Weight [g]	p _{max} ¹ [bar]
	L ₁	L ₂	Ø D	Hex	Flats		
1/4 BSPT	22.0	10.0	13.0	14	10	18.0	approx. 700
1/4 NPT	22.0	10.0	13.0	14	10	18.0	approx. 700

¹ Applies only to operation at constant pressure.

US gal/min at 40 psi	Ordering no.			Bore diameter B [mm]	V̇ water [l/min]							
	Type	Code			p [bar]							
		1/4 BSPT	1/4 NPT		40	60	80	100	120	150	200	300
01	546.300.A3	00	07	0.60	1.44	1.77	2.04	2.28	2.50	2.79	3.22	3.95
02	546.360.A3	00	07	0.84	2.88	3.53	4.08	4.56	5.00	5.58	6.45	7.90
025	546.380.A3	00	07	0.94	3.60	4.42	5.10	5.70	6.24	6.98	8.06	9.87
027	546.390.A3	00	07	0.99	3.89	4.76	5.50	6.15	6.74	7.53	8.70	10.65
03	546.400.A3	00	07	1.03	4.33	5.30	6.12	6.84	7.49	8.38	9.67	11.85
034	546.410.A3	00	07	1.07	4.90	6.00	6.93	7.75	8.49	9.49	10.96	13.42
035	546.420.A3	00	07	1.11	5.05	6.18	7.14	7.98	8.74	9.77	11.29	13.82
038	546.440.A3	00	07	1.15	5.48	6.71	7.75	8.66	9.49	10.61	12.25	15.00
04	546.450.A3	00	07	1.19	5.77	7.06	8.16	9.12	9.99	11.17	12.90	15.80
045	546.470.A3	00	07	1.26	6.49	7.95	9.18	10.26	11.24	12.57	14.51	17.77
05	546.480.A3	00	07	1.33	7.21	8.83	10.20	11.40	12.49	13.96	16.12	19.75
055	546.500.A3	00	07	1.39	7.93	9.71	11.22	12.54	13.74	15.36	17.73	21.72
06	546.520.A3	00	07	1.46	8.65	10.60	12.24	13.68	14.99	16.75	19.35	23.69
065	546.530.A3	00	07	1.51	9.37	11.48	13.26	14.82	16.23	18.15	20.96	25.67
070	546.540.A3	00	07	1.58	10.09	12.36	14.28	15.96	17.48	19.55	22.57	27.64
074	546.550.A3	00	07	1.62	10.67	13.07	15.09	16.87	18.48	20.66	23.86	29.22
08	546.570.A3	00	07	1.69	11.54	14.13	16.31	18.24	19.98	22.34	25.80	31.59
087	546.580.A3	00	07	1.76	12.54	15.36	17.74	19.83	21.72	24.29	28.04	34.35
089	546.590.A3	00	07	1.78	12.83	15.72	18.15	20.29	22.23	24.85	28.69	35.14
10	546.600.A3	00	07	1.88	14.41	17.65	20.38	22.79	24.97	27.91	32.23	39.47
11	546.620.A3	00	07	1.97	15.86	19.42	22.42	25.07	27.46	30.70	35.45	43.42
124	546.640.A3	00	07	2.09	17.87	21.89	25.28	28.26	30.96	34.61	39.97	48.95
131	546.650.A3	00	07	2.15	18.89	23.13	26.71	29.86	32.71	36.57	42.23	51.72
139	546.660.A3	00	07	2.22	20.04	24.54	28.34	31.68	34.70	38.80	44.80	54.87
15	546.670.A3	00	07	2.30	21.62	26.48	30.58	34.19	37.45	41.87	48.35	59.22
165	546.690.A3	00	07	2.41	23.79	29.13	33.64	37.61	41.20	46.06	53.19	65.14
174	546.700.A3	00	07	2.48	25.08	30.72	35.47	39.66	43.45	48.57	56.09	68.69
183	546.710.A3	00	07	2.55	26.38	32.31	37.31	41.71	45.69	51.08	58.99	72.24
20	546.720.A3	00	07	2.66	28.83	35.31	40.78	45.59	49.94	55.84	64.47	78.96
218	546.740.A3	00	07	2.77	31.43	38.49	44.44	49.69	54.43	60.86	70.27	86.07
25	546.760.A3	00	07	2.96	36.04	44.14	50.97	56.99	62.43	69.80	80.60	98.71
294	546.790.A3	00	07	3.22	42.38	51.91	59.94	67.01	73.41	82.07	94.77	116.06
310	546.800.A3	00	07	3.30	44.69	54.73	63.20	70.66	77.40	86.54	99.93	122.39

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Code = Ordering no.
example: 546.300.A3 + 00 = 546.300.A3.00



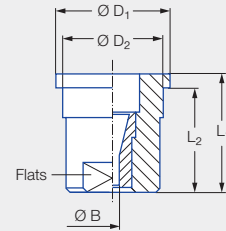
Assembly accessories can be found in Chapter 9 "Accessories".

High pressure solid stream nozzles

Series 548

Properties:

- Concentrated solid stream jet
- High impact
- Housing 303 SS, insert: Hardened stainless steel 420F
- Assembly with retaining nut



Applications:

- Cleaning and washing processes

Series 548

Code	Dimensions [mm]					Weight [g]	p _{max} ¹ [bar]
	L ₁	L ₂	Ø D ₁	Ø D ₂	Flats		
Assembly with retaining nut 3/8 BSPP	16.00	14.00	14.80	12.65	10	13.00	approx. 300

¹ Applies only to operation at constant pressure.

US gal/min at 40 psi	Ordering no. Type	Bore diameter B [mm]	V̇ water [l/min]							
			p [bar]							
			40	60	80	100	120	150	200	300
01	548.300.A3.29	0.60	1.44	1.77	2.04	2.28	2.50	2.79	3.22	3.95
02	548.360.A3.29	0.84	2.88	3.53	4.08	4.56	5.00	5.58	6.45	7.90
025	548.380.A3.29	0.94	3.60	4.42	5.10	5.70	6.24	6.98	8.06	9.87
027	548.390.A3.29	0.99	3.89	4.76	5.50	6.15	6.74	7.53	8.70	10.65
03	548.400.A3.29	1.03	4.33	5.30	6.12	6.84	7.49	8.38	9.67	11.85
034	548.410.A3.29	1.07	4.90	6.00	6.93	7.75	8.49	9.49	10.96	13.42
035	548.420.A3.29	1.11	5.05	6.18	7.14	7.98	8.74	9.77	11.29	13.82
038	548.440.A3.29	1.15	5.48	6.71	7.75	8.66	9.49	10.61	12.25	15.00
04	548.450.A3.29	1.19	5.77	7.06	8.16	9.12	9.99	11.17	12.90	15.80
045	548.470.A3.29	1.26	6.49	7.95	9.18	10.26	11.24	12.57	14.51	17.77
05	548.480.A3.29	1.33	7.21	8.83	10.20	11.40	12.49	13.96	16.12	19.75
055	548.500.A3.29	1.39	7.93	9.71	11.22	12.54	13.74	15.36	17.73	21.72
06	548.520.A3.29	1.46	8.65	10.60	12.24	13.68	14.99	16.75	19.35	23.69
065	548.530.A3.29	1.51	9.37	11.48	13.26	14.82	16.23	18.15	20.96	25.67
070	548.540.A3.29	1.58	10.09	12.36	14.28	15.96	17.48	19.55	22.57	27.64
074	548.550.A3.29	1.62	10.67	13.07	15.09	16.87	18.48	20.66	23.86	29.22
08	548.570.A3.29	1.69	11.54	14.13	16.31	18.24	19.98	22.34	25.80	31.59
087	548.580.A3.29	1.76	12.54	15.36	17.74	19.83	21.72	24.29	28.04	34.35
089	548.590.A3.29	1.78	12.83	15.72	18.15	20.29	22.23	24.85	28.69	35.14
10	548.600.A3.29	1.88	14.41	17.65	20.38	22.79	24.97	27.91	32.23	39.47
11	548.620.A3.29	1.97	15.86	19.42	22.42	25.07	27.46	30.70	35.45	43.42
124	548.640.A3.29	2.09	17.87	21.89	25.28	28.26	30.96	34.61	39.97	48.95
131	548.650.A3.29	2.15	18.89	23.13	26.71	29.86	32.71	36.57	42.23	51.72
139	548.660.A3.29	2.22	20.04	24.54	28.34	31.68	34.70	38.80	44.80	54.87
15	548.670.A3.29	2.30	21.62	26.48	30.58	34.19	37.45	41.87	48.35	59.22
165	548.690.A3.29	2.41	23.79	29.13	33.64	37.61	41.20	46.06	53.19	65.14
174	548.700.A3.29	2.48	25.08	30.72	35.47	39.66	43.45	48.57	56.09	68.69
183	548.710.A3.29	2.55	26.38	32.31	37.31	41.71	45.69	51.08	58.99	72.24
20	548.720.A3.29	2.66	28.83	35.31	40.78	45.59	49.94	55.84	64.47	78.96
218	548.740.A3.29	2.77	31.43	38.49	44.44	49.69	54.43	60.86	70.27	86.07
25	548.760.A3.29	2.96	36.04	44.14	50.97	56.99	62.43	69.80	80.60	98.71
294	548.790.A3.29	3.22	42.38	51.91	59.94	67.01	73.41	82.07	94.77	116.06
310	548.800.A3.29	3.30	44.69	54.73	63.20	70.66	77.40	86.54	99.93	122.39

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

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

High pressure solid stream nozzles

Series 550

Properties:

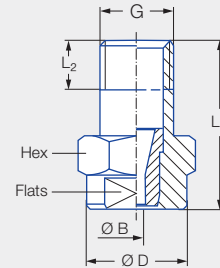
- Concentrated solid stream jet
- High impact
- Housing 303, insert: Hardened stainless steel 1.4034 S

Applications:

- Cleaning and washing processes



Series 550



G	Dimensions [mm]					Weight [g]	p _{max} ¹ [bar]
	L ₁	L ₂	Ø D	Hex	Flats		
1/8 BSPT	22.0	6.5	13.0	14	10	13.0	approx. 700
1/8 NPT	22.0	6.5	13.0	14	10	13.0	approx. 700

¹ Applies only to operation at constant pressure.

US gal/min at 40 psi	Ordering no.			Bore diameter B [mm]	V̇ water [l/min]							
	Type	Code			p [bar]							
		1/8 BSPT	1/8 NPT		40	60	80	100	120	150	200	300
01	550.300.A3	00	07	0.60	1.44	1.77	2.04	2.28	2.50	2.79	3.22	3.95
02	550.360.A3	00	07	0.84	2.88	3.53	4.08	4.56	5.00	5.58	6.45	7.90
025	550.380.A3	00	07	0.94	3.60	4.42	5.10	5.70	6.24	6.98	8.06	9.87
027	550.390.A3	00	07	0.99	3.89	4.76	5.50	6.15	6.74	7.53	8.70	10.65
03	550.400.A3	00	07	1.03	4.33	5.30	6.12	6.84	7.49	8.38	9.67	11.85
034	550.410.A3	00	07	1.07	4.90	6.00	6.93	7.75	8.49	9.49	10.96	13.42
035	550.420.A3	00	07	1.11	5.05	6.18	7.14	7.98	8.74	9.77	11.29	13.82
038	550.440.A3	00	07	1.15	5.48	6.71	7.75	8.66	9.49	10.61	12.25	15.00
04	550.450.A3	00	07	1.19	5.77	7.06	8.16	9.12	9.99	11.17	12.90	15.80
045	550.470.A3	00	07	1.26	6.49	7.95	9.18	10.26	11.24	12.57	14.51	17.77
05	550.480.A3	00	07	1.33	7.21	8.83	10.20	11.40	12.49	13.96	16.12	19.75
055	550.500.A3	00	07	1.39	7.93	9.71	11.22	12.54	13.74	15.36	17.73	21.72
06	550.520.A3	00	07	1.46	8.65	10.60	12.24	13.68	14.99	16.75	19.35	23.69
065	550.530.A3	00	07	1.51	9.37	11.48	13.26	14.82	16.23	18.15	20.96	25.67
070	550.540.A3	00	07	1.58	10.09	12.36	14.28	15.96	17.48	19.55	22.57	27.64
074	550.550.A3	00	07	1.62	10.67	13.07	15.09	16.87	18.48	20.66	23.86	29.22
08	550.570.A3	00	07	1.69	11.54	14.13	16.31	18.24	19.98	22.34	25.80	31.59
087	550.580.A3	00	07	1.76	12.54	15.36	17.74	19.83	21.72	24.29	28.04	34.35
089	550.590.A3	00	07	1.78	12.83	15.72	18.15	20.29	22.23	24.85	28.69	35.14
10	550.600.A3	00	07	1.88	14.41	17.65	20.38	22.79	24.97	27.91	32.23	39.47
11	550.620.A3	00	07	1.97	15.86	19.42	22.42	25.07	27.46	30.70	35.45	43.42
124	550.640.A3	00	07	2.09	17.87	21.89	25.28	28.26	30.96	34.61	39.97	48.95
131	550.650.A3	00	07	2.15	18.89	23.13	26.71	29.86	32.71	36.57	42.23	51.72
139	550.660.A3	00	07	2.22	20.04	24.54	28.34	31.68	34.70	38.80	44.80	54.87
15	550.670.A3	00	07	2.30	21.62	26.48	30.58	34.19	37.45	41.87	48.35	59.22
165	550.690.A3	00	07	2.41	23.79	29.13	33.64	37.61	41.20	46.06	53.19	65.14
174	550.700.A3	00	07	2.48	25.08	30.72	35.47	39.66	43.45	48.57	56.09	68.69
183	550.710.A3	00	07	2.55	26.38	32.31	37.31	41.71	45.69	51.08	58.99	72.24
20	550.720.A3	00	07	2.66	28.83	35.31	40.78	45.59	49.94	55.84	64.47	78.96
218	550.740.A3	00	07	2.77	31.43	38.49	44.44	49.69	54.43	60.86	70.27	86.07
25	550.760.A3	00	07	2.96	36.04	44.14	50.97	56.99	62.43	69.80	80.60	98.71
294	550.790.A3	00	07	3.22	42.38	51.91	59.94	67.01	73.41	82.07	94.77	116.06
310	550.800.A3	00	07	3.30	44.69	54.73	63.20	70.66	77.40	86.54	99.93	122.39

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Code = Ordering no.
example: 550.300.A3 + 00 = 550.300.A3.00



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

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