


I'm not robot  reCAPTCHA

I am not robot!

Graco spray tip size guide

Graco tip size chart.

Fan Size (In Inches)	Orifice Size				
	0.008	0.010	0.012	0.014	0.016
2-4	108	110	112		
4-6	208	210	212	214	
6-8	308	310	312	314	
8-10		410	412	414	
10-12		510	512	514	516
12-14					616

Speed Advice Use smaller tip size when applying thinner materials such as stains and enamels Use larger sizes for thicker materials such as exterior, latex and oil based paints The larger the size of the tip hole, the faster the material leaves the gun A 313 tip sprays faster than a 311 or 411 tip Understanding Tip Wear and Effects Since most coatings have solids that cause abrasion, spray tips will wear with normal use. When a tip wears, the orifice size increases and the fan width decreases. This causes more paint to hit a smaller area, which wastes paint and slows productivity. It's important to replace a tip when it gets worn to make sure you get a precise spray pattern, maximum productivity and quality finish on your project. Tip Wear Advice Always turn down the spray pressure as low as it can go, while still spraying a good spray pattern. This not only saves paint by reducing overspray but it also reduces tip wear and prolongs pump life. Tip life varies by coating. Recommended replacement times: Latex - Replace after 15-40 gallons Oils & Stains - Replace after 35-60 gallons Do not increase the pump pressure - this only wastes paint and causes unnecessary pump component wear. Order Graco LineLazer tips These yellow tips are specifically designed for line stripping machines. Creates clean, laser-sharp lines with no fuzzy edges. Sprays heavy water-based to thin alkyd traffic paints. Fits the orange RAC5 tip guard. LL5 and tip size - LL5xxx such as LL5319.

Tip Selection Chart

AAP Tip Chart

All tips in the AAP selection chart can be used with Models 288046 and 288044 G40 guns. Order desired tip (part no. AAPxxx) from the selection chart below.

Orifice Size in (mm)	*Fluid Output, fl oz/min (gpm)		Maximum Pattern Width at 12 in (305 mm)						
	at 600 psi (4.1 MPa, 41 bar)	at 1000 psi (7.0 MPa, 70 bar)	4 to 6 (150)	6 to 8 (200)	8 to 10 (250)	10 to 12 (300)	12 to 14 (350)	14 to 16 (400)	16 to 18 (450)
1 0.009 (0.229)	7.0 (0.2)	9.1 (0.27)	209	309	409	509			
1 0.011 (0.279)	10.0 (0.3)	13.0 (0.4)	211	311	411	511	611		
1 0.013 (0.330)	13.0 (0.4)	16.9 (0.5)	213	313	413	513	613	713	
1 0.015 (0.381)	17.0 (0.5)	22.0 (0.7)	215	315	415	515	615	715	815
1 0.017 (0.432)	22.0 (0.7)	28.5 (0.85)		317	417	517	617	717	817
1 0.019 (0.483)	28.0 (0.8)	36.3 (1.09)			419	519	619	719	
1 0.021 (0.533)	35.0 (1.0)	45.4 (1.36)			421	521	621	821	

*These tip sizes include a 150 mesh tip filter. *Tips are tested in water.

AAF Tip Chart

Recommended for high finish quality applications at low and medium pressure. AAF tips have a pre-orifice which assists in atomizing shear thinning materials, including lacquers. Order desired tip (part no. AAFxxx).

Orifice Size in (mm)	*Fluid Output, fl oz/min (gpm)		Maximum Pattern Width at 12 in (305 mm)						
	at 600 psi (4.1 MPa, 41 bar)	at 1000 psi (7.0 MPa, 70 bar)	6 to 8 (200)	8 to 10 (250)	10 to 12 (300)	12 to 14 (350)	14 to 16 (400)		
0.011 (0.279)	9.5 (0.28)	12.5 (0.37)	310	410	510	610	710		
0.013 (0.330)	12.0 (0.35)	16.0 (0.47)	312	412	512	612	712		
0.015 (0.381)	16.0 (0.47)	21.0 (0.62)		414	514	614	714		
0.017 (0.432)	20.0 (0.59)	26.5 (0.78)		416	516	616	716		

*Tips are tested in water.

LTX Tip Chart

All tips in the LTX selection chart can be used with Model 288053 G40 RAC gun. Order desired tip (part no. LTXxxx) from the selection chart below. The RAC aircap also accommodates fine finish tips (FFTxxx) and wide RAC tips (WRxxxx). Refer to instruction manual 311052.

Orifice Size in (mm)	*Fluid Output, fl oz/min (gpm)		Maximum Pattern Width at 12 in (305 mm)						
	at 2000 psi (14.0 MPa, 140 bar)		4 to 6 (150)	6 to 8 (200)	8 to 10 (250)	10 to 12 (300)	12 to 14 (350)		
0.009 (0.229)	11.2 (0.33)		209	309					
0.011 (0.279)	16.6 (0.49)		211	311	411	511			
0.013 (0.330)	23.3 (0.69)		213	313	413	513			
0.015 (0.381)	30.8 (0.91)		215	315	415	515	615		
0.017 (0.432)	39.5 (1.17)		217	317	417	517	617		
0.019 (0.483)	49.7 (1.47)		219	319	419	519	619		
0.021 (0.533)	60.5 (1.79)			321	421	521	621		
0.023 (0.584)	72.7 (2.15)				423	523	623		
0.025 (0.635)	85.9 (2.54)					525	625		
0.027 (0.686)	100.0 (2.96)					527	627		
0.029 (0.737)	115.6 (3.42)						629		
0.031 (0.787)	131.8 (3.90)						531	631	

*Tips are tested in water.

Most often the model number of the sprayer corresponds to the largest tip it can support. Speed Advice Use smaller tip size when applying thinner materials such as stains and enamels Use larger sizes for thicker materials such as exterior, latex and oil based paints The larger the size of the tip hole, the faster the material leaves the gun A 313 tip sprays faster than a 311 or 411 tip Understanding Tip Wear and Effects Since most coatings have solids that cause abrasion, spray tips will wear with normal use. When a tip wears, the orifice size increases and the fan width decreases. This causes more paint to hit a smaller area, which wastes paint and slows productivity. It's important to replace a tip when it gets worn to make sure you get a precise spray pattern, maximum productivity and quality finish on your project.

ORIFICE SIZE – INCHES							
In (mm)	0.008	0.010	0.012	0.014	0.016	0.018	0.020
2-4 (51-102)	108	110	112				
4-6 (102-152)	208	210	212	214			
6-8 (152-203)	308	310	312	314			
8-10 (203-254)		410	412	414			
10-12 (254-305)		510	512	514	516	518	520
12-14 (305-356)					616	618	620
Flow Rate (gpm)	.07	.11	.15	.21	.27	.35	.43
Flow Rate (lpm)	.26	.41	.59	.80	1.04	1.32	1.63

Water at 2000 psi (138 bar, 13.8 MPa); paints with a higher viscosity will decrease the flow rate.
 Example: For a tip with a .010 orifice and a 8 in (203 mm) pattern, order FFLP410.

Specifications & Documents To make sure you always have the correct tip for the project and coating you're using, it's easier than you might think to "break the code" of numbers to understand tip sizing. Two Basic Concepts to Remember: The width of the spray fan is important for the type of project you're sprayingThe size of the spray tip opening relates to the thickness of the material you're spraying Breakdown of Spray Tip Numbers: The first digit is half of the fan width, the "5" in "517" equals a 10 inch spray fan width (5 x 2 = 10)The last two digits are the size of the tip opening in thousandths of an inch, the "17" in "517" means the tip hole size is .017 inch Check Your Sprayer Before selecting a spray tip, always make sure you know what sprayer you're using, and the size spray tips it can support.

	Airless Paint Sprayers													
	DP		Switch (200V / 120V single phase)						Electric (208V 3ph)					
	DP-6888	DP-85	DP-6818	DP-6826	DP-6833	DP-6835	DP-6830	DP-6888	DP-9000	DP-7500	DP-9800	DP-9800	DP-9800	DP-9800
Power / Unit	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Stand / Motor	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Motor / Type	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Max Tip Size (inch)														
1 gpm	0.017	0.017	0.021	0.023	0.025	0.031	0.035	0.037	0.041	0.046	0.048	0.048	0.048	0.048
High Pressure Filter	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories														
Annual Use (gallons)	450	400	5000	10000	12000	28000	80000	80000	40000	70000	10000	100000	100000	100000
Max Pressure (psi)	3045	3045	3045	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
Output volume (gallons per minute)	1	1	1.8	2.2	2.5	3.8	5	6	8	12	15.5	15.5	15.5	15.5
Motor / Type	Unimotor	Unimotor	PMDC	PMDC	PMDC	PMDC	PMDC	Brushless	IM	IM	IM	IM	IM	IM
Material Applications:														
Latex	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Latex	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Varnish	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water-based Paints	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Oil-based Paints	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Elastomeric	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Multi Color	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Block Filler	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Elastomeric	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Epoxy	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Oil-based	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Painting	•	•	•	•	•	•	•	•	•	•	•	•	•	•

This information can be found in the sprayer manual. Most often the model number of the sprayer corresponds to the largest tip it can support. Speed Advice Use smaller tip size when applying thinner materials such as stains and enamelsUse larger sizes for thicker materials such as exterior, latex and oil based paintsThe larger the size of the tip hole, the faster the material leaves the gunA 313 tip sprays faster than a 311 or 411 tip Understanding Tip Wear and Effects Since most coatings have solids that cause abrasion, spray tips will wear with normal use. When a tip wears, the orifice size increases and the fan width decreases. This causes more paint to hit a smaller area, which wastes paint and slows productivity. It's important to replace a tip when it gets worn to make sure you get a precise spray pattern, maximum productivity and quality finish on your project. Tip Wear Advice Always turn down the spray pressure as low as it can go, while still spraying a good spray pattern. This not only saves paint by reducing overspray but it also reduces tip wear and prolongs pump life. Tip life varies by coating.

Recommended replacement times:Latex - Replace after 15-40 gallonsOils & Stains - Replace after 35-60 gallons Do not increase the pump pressure - this only wastes paint and causes unnecessary pump component wear. Order Graco LineLazer tips These yellow tips are specifically designed for line stripping machines. Creates clean, laser-sharp lines with no fuzzy edges.

Orifice Size (inches)	Fan Width - Inches								Flow Rate (gpm)
	6" - 8" Fan	8" - 10" Fan	10" - 12" Fan	12" - 14" Fan	14" - 16" Fan	16" - 18" Fan	18" - 20" Fan		
.009"	209	309	409	509	609				.09
.011"	211	311	411	511	611				.12
.013"	213	313	413	513	613	713	813		.16
.015"	215	315	415	515	615	715	815		.24
.017"	217	317	417	517	617	717	817	917	.31
.018"	219	319	419	519	619	719	819	919	.38
.021"	221	321	421	521	621	721	821	921	.47
.023"	223	323	423	523	623	723	823	923	.57
.025"	225	325	425	525	625	725	825	925	.67
.027"	227	327	427	527	627	727	827	927	.77
.029"	329	429	529	629	729	829	929		.90
.031"	331	431	531	631	731	831	931		1.03
.033"	333	433	533	633	733	833	933		1.17
.035"	335	435	535	635	735	835	935		1.31
.039"	339	439	539	639	739	839	939		1.63
.043"	343	443	543	643	743	843	943		1.93
.045"	445	545	645	745					2.17
.047"	447	547	647	747					2.36
.049"	449	549	649	749					2.57
.051"	451	551	651	751					2.79
.053"	453	553	653	753					3.00
.055"	455	555	655	755					3.25
.063"	463	563	663	763					4.26
.065"	465	565	665	765					4.43

Select Surface Size (in.) Please check your part number for accuracy or try searching the entire site. Image is for illustrative purposes only. Specifications & Documents To make sure you always have the correct tip for the project and coating you're using, it's easier than you might think to "break the code" of numbers to understand tip sizing. Two Basic Concepts to Remember: The width of the spray fan is important for the type of project you're sprayingThe size of the spray tip opening relates to the thickness of the material you're spraying Breakdown of Spray Tip Numbers: The first digit is half of the fan width, the "5" in "517" equals a 10 inch spray fan width (5 x 2 = 10)The last two digits are the size of the tip opening in thousandths of an inch, the "17" in "517" means the tip hole size is .017 inch Check Your Sprayer Before selecting a spray tip, always make sure you know what sprayer you're using, and the size spray tips it can support. The pressure volume on each sprayer is different and this determines which size tips can be used. This information can be found in the sprayer manual. Most often the model number of the sprayer corresponds to the largest tip it can support. Speed Advice Use smaller tip size when applying thinner materials such as stains and enamelsUse larger sizes for thicker materials such as exterior, latex and oil based paintsThe larger the size of the tip hole, the faster the material leaves the gunA 313 tip sprays faster than a 311 or 411 tip Understanding Tip Wear and Effects Since most coatings have solids that cause abrasion, spray tips will wear with normal use. When a tip wears, the orifice size increases and the fan width decreases. This causes more paint to hit a smaller area, which wastes paint and slows productivity. It's important to replace a tip when it gets worn to make sure you get a precise spray pattern, maximum productivity and quality finish on your project. Tip Wear Advice Always turn down the spray pressure as low as it can go, while still spraying a good spray pattern. This not only saves paint by reducing overspray but it also reduces tip wear and prolongs pump life. Tip life varies by coating. Recommended replacement times:Latex - Replace after 15-40 gallonsOils & Stains - Replace after 35-60 gallons Do not increase the pump pressure - this only wastes paint and causes unnecessary pump component wear. Combining the correct Graco spray tip with your gun plays a big role in helping you create the professional finish your job demands. Not only does the tip determine how much fluid will leave the gun when you pull the trigger, the spray tip also determines how wide a spray fan the gun will create. WATCH: Choosing and Understanding Spray Tips (5:15) Choose a tip with an orifice size rated for the paint or coating you'll be spraying. Light coatings such as lacquers, stains, and enamels require a small tip, while heavier coatings such as texture require larger spray tips. Many paint manufacturers will specify recommended spray tip sizes on the container or product specification sheet. The spray tip according to the tip rating of your sprayer. Make sure that the sprayer can support the tip you are planning to use. If you plan on using multiple spray guns on your job, pick a tip size that matches the multiple gun tip rating of your sprayer. Lacquer or Stain.009 - .013 Oil Based Paint.013 - .015 Latex Paint.015 - .019 Heavy Latex or Smooth Elastomeric.021 - .025 Elastomeric & Blockfiller.025 - .035 + Most spray tips are identified by a three-digit code. The first number, when multiplied by 2, tells you how wide of a fan the tip will create when sprayed at a distance of 12 inches from the surface. The second two numbers are the orifice size of an inch, that determines how much fluid will leave the spray tip. For example, a 515 tip will spray a 10-inch-wide fan and have a 15-thousandths of an inch orifice. It's the combination of fan-width and orifice-size that determines how thick of a coating you'll spray. Case in point - a 317 tip and a 517 tip both have the same orifice size - 17-thousandths of an inch. But, the 517 tip sprays a 10-inch-wide fan, while the 317 sprays a 6-inch-wide fan. Because the same amount of paint is leaving the orifice of the spray tip, but is being dispersed across a wider fan, the 517 tip will deliver a thinner coating with less mil build. General use tips are blue or blackFine finish or low-pressure tips are greenTips for pavement stripping or field marking are yellowHigh pressure, heavy duty tips for heavy coatings and texture are gray For example, assume that paint costs \$15 per gallon, labor costs \$25 an hour and the contractor sprays 5 gallons of paint per hour. If the contractor uses a worn tip (a 12-inch fan pattern worn to 9-inch) he will spend an additional \$36.25 in wasted paint and labor per hour. If the painter continues to use the worn tip, it will cost him around \$300 per day! Always turn down the pressure as low as it can go, while still spraying a good spray pattern. This not only saves paint, but it also reduces tip wear and prolongs pump life, saving you money. There's a Graco spray tip that's specifically built for your application. Understanding airless tip options will help you choose the Graco spray tip best suited for your needs. Reverse-A-Clean tips, also called RAC tips, are the most versatile reversible tips on the market. They're available in about 200 sizes and can be used for a wide variety of coatings. With a reversible tip, you can easily clear tip clogs by simply turning the tip 180 degrees to the clean position and then triggering the sprayer. And, thanks to their innovative design, RAC tips can be quickly replaced without removing the tip guard and housing. Graco's RAC-X Fine Finish Low Pressure and Low Pressure Switch Tips offer the industry's best finish at the world's lowest airless spray pressure! These tips are available in small sizes for fine finish applications and large sizes for high-production applications. This breakthrough technology allows you to spray at up to 50% lower pressure with less overspray, providing consistent, blended finish quality with complete atomization spraying at half the pressure. This can double the tip life and extend pump life. Graco RAC-X Fine Finish Low Pressure and Low Pressure Switch Tips work with all airless sprayers. For larger sprayers, in higher production applications, Graco offers WideRAC SwitchTips. They create an extra-wide 24-inch fan pattern, allowing you to spray twice the surface of a standard tip. These tips require a larger orifice size to offer a thick enough mil build to cover such a wide area in one pass. Graco's XHD RAC SwitchTips are designed for use with heavy coatings that require higher pressures to atomize. They're recognized by use with their oversized gray handle, which allows for easy rotation, even with very thick coatings such as texture and elastomeric. After many years of leading the industry in fluid applications, Graco has a tip perfectly engineered to get the job done with the highest professional quality finish, whatever your spraying application.