

Spray Nozzle Catalog

A guide to spray nozzle selection



A selection guide
to nozzles that will
optimize your showering
applications.

How to Use This Catalog

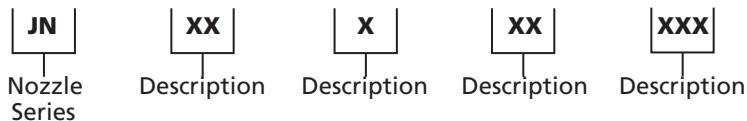
How to identify, specify, and order
Kadant spray nozzles and parts

Use the PDF search feature to find a specific spray nozzle number.

Identification

Each type of Kadant spray nozzle is uniquely identified using a two letter designation called the Nozzle Series. Spray nozzle characteristics are specified along with the complete spray nozzle code.

Example ordering information



Examine the photo and dimensional drawing

The dimensional drawings and spray nozzle photos aid in easier part and part number identification. The accompanying charts, spray nozzle descriptions, and flow data will allow the correct spray nozzle to be specified for the application.

Check performance figures and specifications

This catalog contains an individual flow rate chart for each type of Kadant spray nozzle. Flows at various pressures are available for every orifice/fan angle offered. The fan nozzle coverage chart is available on the following page. Construction details and the design pressures are published for each spray nozzle offered.

Ordering

Parts can be ordered using the new spray nozzle code with the two letter prefix, the old spray nozzle codes/part numbers found in the Parts Cross Reference section 9, or any part numbers previously used for order placement. To place an order, please call 508-791-8171 to speak with our customer service department. Order and quote requests can also be emailed to info@kadant.com.

Warranty

Kadant warrants that, upon delivery, all spray nozzles and spray nozzle parts will perform according to printed specifications when properly installed. If the spray nozzle fails to perform properly under these conditions for reasons due to original workmanship or materials, Kadant will replace the non-performing spray nozzle or spray nozzle part with a like spray nozzle or spray nozzle part.

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ArresTech™ Spray Nozzle Enhancement

ArresTech spray nozzle enhancement is a proprietary plating technology. ArresTech spray nozzle enhancement imparts hardness, abrasion resistance, and lubricity to the base metal. ArresTech spray nozzle enhancement performance characteristics combine to:

1. Prevent thread galling during nozzle installation and removal.
2. Extend the life of the base metal increasing shower nozzle life, and preserving the design integrity of the part, allowing spray patterns to remain precise longer.
3. Accelerate nozzle installation, removal, and inspection.

Galling and nozzle wear

While austenitic 300 series stainless steels offer good corrosion resistance, the low hardness results in poor wear performance and contributes to susceptibility to galling. Galling occurs when the stainless steel oxide surface film breaks down as a result of direct metal contact. The symptoms of galling include surface damage, and the seizing and freezing up of equipment. Galling is a severe form of adhesive wear which initially shows up as torn areas on the metal surface. Threads (both straight and NPT) are particularly susceptible to galling due to high friction. On "non-wear" parts such as pipe fittings, nozzle bases, and nozzle retainer nuts, thread tears will eventually result in the need for part replacement. In extreme cases, solid-phase welding can take place (whereby material is transferred from one surface to another) causing the stainless-to-stainless threads to bond together making disassembly difficult or impossible.

Installation costs

Many maintenance managers don't admit to having "nozzle galling problems." They fail to see that just the potential for stainless-to-stainless galling slows down maintenance tasks which increases costs. To prevent galling, maintenance personnel must work carefully and apply anti-galling compounds and tapes. If severe galling does occur, a three hour nozzle replacement job can easily become six or eight hours for bases to be re-tapped, or in extreme cases, to have nozzles welded into position to stop leaks. But even three hours to change nozzles is too long when a faster, less costly alternative exists.

ArresTech spray nozzle enhancement stops thread galling — speeds installation

To prevent thread galling, one of the two mating threads is plated with ArresTech spray nozzle enhancement. In a lab test, a four inch diameter NPT type 316 stainless steel pipe cap plated with ArresTech spray nozzle enhancement was dry assembled and disassembled to a standard 316L stainless steel nipple over 30 times without any evidence of thread tears. An unplated cap failed due to thread tears during its first dry-assembly. ArresTech spray nozzle enhancement plated 9/16-24 thread, needle-jet nozzles may be dry-installed in standard bases (without anti-galling lubricant or tape) using a power wrench. Nozzle change time for a typical shower will decrease from hours to just minutes!

ArresTech spray nozzle enhancement extends nozzle life — minimizes fouling

By making the surface of a 316 stainless steel nozzle as hard as a high-speed drill bit, ArresTech spray nozzle enhancement extends nozzle life. While an ArresTech spray nozzle enhancement plated nozzle will not out-wear ceramic, ruby, or sapphire, it will outwear type 316 stainless steel over two to one. Additionally, since the ArresTech spray nozzle enhancement plated nozzle is much less susceptible to damage while cleaning, its useful life may prove longer.

Jet Nozzles



JN



JJ



BB



SB

Products

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Needle Jet Nozzles

Series JN Needle Jet Nozzle



Nozzle Characteristics

The JN needle jet nozzle is designed to deliver a solid stream of water at a wide range of pressures. An integral nozzle extension can be supplied for showers with nozzles installed in the 3 to 9 o'clock position. Fluid is supplied to the nozzle from the center of the pipe preventing settled contaminants from plugging the nozzle.

Construction

Standard material is 316SS. To prevent galling, ArresTech plated stainless steel is available as an option. The nozzles are designed for use in systems that operate up to 1000 psig.

Components



Nozzle, Jet

O-Ring, Buna-N, 1158014001

Nozzle, Jet, with Extension

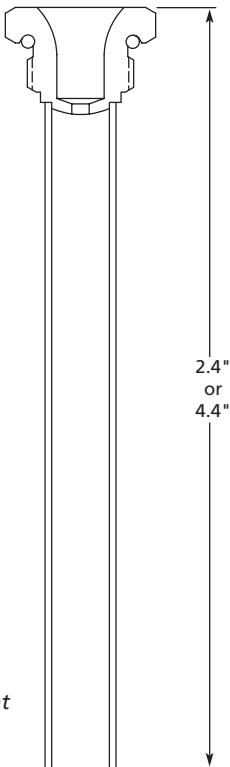
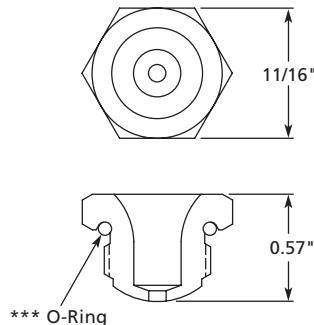
Internal extensions are used when nozzles are located in 3 to 9 o'clock positions.

Base, Nozzle*

124N – 9/16"-24

*Welded to shower – not normally replaced.

*For other bases consult Kadant Solutions.



**O-Ring only included with ArresTech plated nozzles that have connection sizes of 1/4" BSPP and 9/16" – 24.

Jet Nozzle Ordering Information					
Nozzle Series	JN	9U	2	A	04
Connection			Length	Construction Material	Orifice Number

Nozzle Length	Code
0.57"	0
2.4"	1
4.4"	2
Construction Material	Code
ArresTech Plated 316SS***	A
316SS	S

Connection Size/Type	Code
1/4" NPT	1/4
1/4" BSPT	4B
9/16" – 24	9U
1/4" BSPP	4B

***Available for orifice sizes 0.023" and larger.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series JN Needle Jet Nozzle

Flow Rate (Gallons per Minute)

Orifice Number	Nozzle Orifice (inch)	Pressure (PSI)									
		20	40	60	80	100	200	400	600	800	1000
010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
014	0.014	0.016	0.023	0.028	0.032	0.036	0.051	0.071	0.087	0.101	0.113
016	0.016	0.021	0.030	0.036	0.042	0.047	0.066	0.093	0.114	0.132	0.148
020	0.020	0.033	0.046	0.056	0.065	0.073	0.103	0.146	0.179	0.206	0.231
023	0.023	0.043	0.061	0.075	0.086	0.096	0.136	0.193	0.236	0.273	0.305
026	0.026	0.055	0.078	0.095	0.110	0.123	0.174	0.246	0.302	0.348	0.390
028	0.028	0.064	0.090	0.110	0.128	0.143	0.202	0.285	0.350	0.403	0.451
033	0.033	0.089	0.125	0.153	0.177	0.198	0.280	0.396	0.486	0.560	0.626
035	0.035	0.100	0.141	0.172	0.199	0.223	0.315	0.445	0.547	0.629	0.704
038	0.038	0.118	0.166	0.204	0.235	0.263	0.372	0.526	0.645	0.744	0.832
040	0.040	0.130	0.184	0.225	0.260	0.291	0.412	0.582	0.714	0.823	0.920
047	0.047	0.180	0.255	0.312	0.360	0.403	0.569	0.805	0.986	1.139	1.273
052	0.052	0.220	0.312	0.382	0.441	0.493	0.697	0.986	1.207	1.394	1.558
055	0.055	0.246	0.348	0.426	0.492	0.550	0.778	1.100	1.350	1.556	1.740
060	0.060	0.293	0.415	0.508	0.587	0.656	0.928	1.312	1.607	1.856	2.075
070	0.070	0.399	0.565	0.692	0.799	0.893	1.263	1.786	2.187	2.526	2.824
093	0.093	0.705	0.997	1.221	1.410	1.576	2.229	3.152	3.861	4.458	4.984
107	0.107	0.933	1.320	1.616	1.866	2.086	2.951	4.173	5.111	5.901	6.598
125	0.125	1.273	1.801	2.206	2.547	2.848	4.027	5.695	6.975	8.054	9.005
129	0.129	1.356	1.918	2.349	2.713	3.033	4.289	6.065	7.429	8.578	9.590
156	0.156	1.983	2.805	3.435	3.967	4.435	6.272	8.870	10.864	12.544	14.025
172	0.172	2.411	3.410	4.176	4.822	5.391	7.625	10.783	13.206	15.249	17.049
187	0.187	2.850	4.031	4.936	5.700	6.373	9.013	12.746	15.610	18.025	20.153
203	0.203	3.359	4.750	5.817	6.717	7.510	10.621	15.020	18.396	21.242	23.749
219	0.219	3.909	5.528	6.770	7.818	8.741	12.361	17.481	21.410	24.722	27.640
250	0.250	5.094	7.204	8.823	10.188	11.390	16.108	22.780	27.900	32.216	36.019

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Series JN Needle Jet Nozzle



Flow Rate (Liters per Minute)

Orifice Number	Nozzle Orifice (mm)	Pressure kPa (Bars)									
		100	200	300	400	600	800	1000	2000	4000	7000
		1.0	2.0	3.0	4.0	6.0	8.0	10.0	20.0	40.0	70.0
010	0.254	0.026	0.037	0.046	0.053	0.064	0.074	0.083	0.117	0.166	0.220
014	0.356	0.051	0.073	0.089	0.103	0.126	0.146	0.163	0.230	0.326	0.431
016	0.406	0.067	0.095	0.116	0.135	0.165	0.190	0.213	0.301	0.425	0.563
020	0.508	0.105	0.149	0.182	0.210	0.257	0.297	0.332	0.470	0.665	0.879
023	0.584	0.139	0.197	0.241	0.278	0.340	0.393	0.440	0.622	0.879	1.163
026	0.660	0.178	0.251	0.308	0.355	0.435	0.502	0.562	0.794	1.123	1.486
028	0.711	0.206	0.291	0.356	0.411	0.504	0.581	0.650	0.919	1.300	1.720
033	0.838	0.286	0.405	0.496	0.572	0.653	0.754	0.905	1.280	1.810	2.394
035	0.889	0.321	0.454	0.556	0.642	0.786	0.907	1.014	1.435	2.029	2.684
038	0.965	0.379	0.537	0.657	0.759	0.866	1.000	1.200	1.697	2.399	3.174
040	1.016	0.420	0.593	0.727	0.839	1.028	1.187	1.327	1.876	2.653	3.510
047	1.194	0.580	0.821	1.005	1.161	1.422	1.642	1.835	2.595	3.671	4.856
052	1.321	0.710	1.005	1.230	1.421	1.740	2.009	2.247	3.177	4.493	5.944
055	1.397	0.793	1.122	1.374	1.586	1.943	2.243	2.508	3.547	5.016	6.636
060	1.524	1.111	1.571	1.924	2.221	2.484	3.512	4.967	6.083	7.024	7.854
070	1.778	1.287	1.821	2.230	2.575	3.153	3.641	4.071	5.757	8.142	10.771
093	2.362	2.272	3.214	3.936	4.545	5.566	6.427	7.186	10.162	14.371	19.012
107	2.718	3.008	4.254	5.210	6.016	7.368	8.508	9.512	13.452	19.024	25.166
125	3.175	4.105	5.806	7.110	8.211	10.055	11.611	12.982	18.359	25.963	34.346
129	3.277	4.371	6.183	7.572	8.744	10.709	12.366	13.826	19.552	27.651	36.579
156	3.962	6.393	9.042	11.074	12.788	15.661	18.084	20.219	28.594	40.437	53.493
172	4.369	7.771	10.992	13.462	15.546	19.038	21.984	24.579	34.760	49.157	65.029
187	4.750	9.186	12.993	15.913	18.375	22.504	25.985	29.053	41.087	58.105	76.866
203	5.156	10.825	15.312	18.752	21.654	26.519	30.622	34.237	48.419	68.474	90.582
219	5.563	12.599	17.821	21.825	25.202	30.865	35.640	39.847	56.352	79.693	105.424
250	6.350	16.418	23.223	28.441	32.842	40.221	46.444	51.926	73.435	103.852	137.382

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Needle Jet Nozzles

Series JJ Needle Jet Nozzle with Jeweled or Ceramic Insert

Nozzle Characteristics

The JJ needle jet nozzle uses a Duracerm ceramic, ruby or sapphire insert material and is designed to deliver a solid stream of water at a wide range of pressures. Ruby and sapphire inserts have excellent erosion resistance to liquid flow, maximizing nozzle life. Duracerm ceramic is one of the toughest shower nozzle materials available. It will withstand thermal shock and provide long life compared with stainless steel. An integral nozzle extension can be supplied for showers with nozzles installed in the 3 to 9 o'clock position. Fluid is supplied to the nozzle from the center of the pipe preventing settled contaminants from plugging the nozzle.

Construction

All JJ series nozzles are 316SS plated with ArresTech to prevent thread galling during installation. The standard nozzles are designed for use in systems that operate up to 1000 psig. Sapphire nozzles are available with a 5000 psig design option.

Components



Nozzle, Jet

O-Ring, Buna-N, 1158014001



Nozzle, Jet, with Extension

Internal extensions are used when nozzles are located in 3 to 9 o'clock positions.

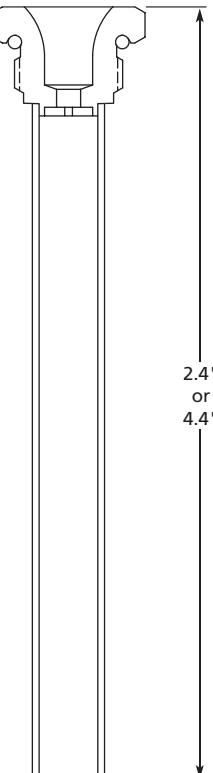
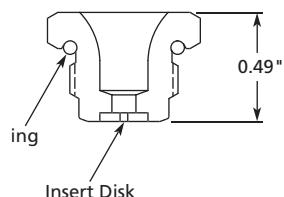
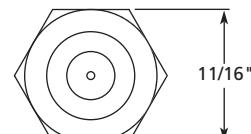


Base, Nozzle*

124N – 9/16"-24

*Welded to shower – not normally replaced.

*For other bases consult Kadant Solutions.



**O-Ring only included with 9/16" – 24 threads.

Jet Nozzle Ordering Information						
Nozzle Series	JJ	9U	P	2	A	040 HP
Connection			Insert Material	Length	Construction Material	Orifice Number Design Pressure

Nozzle Length	Code
0.57"	0
2.4"	1
4.4"	2
Connection Size/Type	Code
1/4" NPT	1/4
1/4" BSPT	4B
9/16" – 24	9U
Construction Material	Code
ArresTech Plated 316SS	A
Insert Material	Code
Ruby	R
Sapphire	P
Duracerm	D
Design Pressure	Code
1000 PSIG	–
5000 PSIG ***	HP

***Only available with sapphire insert.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Jet Nozzles Tab](#)

Series JJ Needle Jet Nozzle Jeweled or Ceramic Insert



Flow Rate (Gallons per Minute)

Sizes Available			Nozzle Orifice (inch)	Pressure (PSI)									
Duracerm	Ruby/ Sapphire	Orifice		20	40	60	80	100	200	400	600	800	1000
	x	J005	0.005	0.002	0.003	0.004	0.004	0.005	0.006	0.009	0.011	0.013	0.014
	x	J008	0.008	0.005	0.007	0.009	0.010	0.012	0.016	0.023	0.028	0.033	0.037
	x	J010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
	x	J012	0.012	0.012	0.017	0.020	0.023	0.026	0.037	0.052	0.064	0.074	0.083
	x	J015	0.015	0.018	0.026	0.032	0.037	0.041	0.058	0.082	0.100	0.116	0.129
	x	J016	0.016	0.021	0.030	0.036	0.042	0.047	0.066	0.093	0.114	0.132	0.148
	x	J018	0.018	0.026	0.037	0.046	0.053	0.059	0.083	0.118	0.144	0.167	0.186
	x	J020	0.020	0.033	0.046	0.056	0.065	0.073	0.103	0.146	0.178	0.206	0.230
	x	J024	0.024	0.043	0.061	0.075	0.086	0.096	0.136	0.192	0.236	0.272	0.304
	x	J025	0.025	0.051	0.072	0.088	0.102	0.114	0.161	0.227	0.278	0.322	0.360
	x	J028	0.028	0.064	0.090	0.110	0.128	0.143	0.202	0.285	0.349	0.403	0.451
	x	J030	0.030	0.073	0.104	0.127	0.146	0.164	0.232	0.327	0.401	0.463	0.518
	x	J032	0.032	0.083	0.118	0.145	0.167	0.187	0.264	0.373	0.457	0.528	0.590
	x	J033	0.033	0.089	0.125	0.153	0.177	0.198	0.280	0.396	0.485	0.560	0.626
	x	J035	0.035	0.100	0.141	0.172	0.199	0.223	0.315	0.445	0.545	0.629	0.704
x	x	J040	0.040	0.130	0.184	0.225	0.260	0.291	0.412	0.582	0.713	0.823	0.920
	x	J048	0.048	0.188	0.266	0.325	0.376	0.420	0.594	0.840	1.029	1.188	1.328
	x	J055	0.055	0.066	0.348	0.426	0.492	0.550	0.778	1.100	1.348	1.556	1.740

Flow Rate (Liters per Minute)

Sizes Available			Nozzle Orifice (mm)	Pressure kPa (Bars)										
Duracerm	Ruby/ Sapphire	Orifice Nozzle Number		100	200	300	400	600	800	1000	2000	4000	7000	
				1.0	2.0	3.0	4.0	6.0	8.0	10.0	20.0	40.0	70.0	
	x	J005	0.127	0.007	0.009	0.011	0.013	0.016	0.019	0.021	0.029	0.041	0.055	
	x	J008	0.008	0.017	0.024	0.029	0.033	0.041	0.047	0.053	0.075	0.106	0.140	
	x	J010	0.254	0.026	0.037	0.045	0.052	0.064	0.074	0.083	0.117	0.166	0.219	
	x	J012	0.305	0.038	0.054	0.066	0.076	0.086	0.100	0.120	0.169	0.239	0.317	
	x	J015	0.381	0.059	0.083	0.102	0.118	0.144	0.167	0.187	0.264	0.373	0.494	
	x	J016	0.406	0.067	0.095	0.116	0.135	0.153	0.177	0.213	0.301	0.425	0.563	
	x	J018	0.457	0.085	0.120	0.147	0.170	0.208	0.240	0.269	0.380	0.537	0.711	
	x	J020	0.508	0.105	0.148	0.182	0.210	0.257	0.297	0.332	0.469	0.663	0.877	
	x	J024	0.584	0.139	0.196	0.240	0.277	0.340	0.392	0.439	0.620	0.877	1.16	
	x	J025	0.635	0.164	0.232	0.284	0.328	0.401	0.463	0.518	0.733	1.04	1.37	
	x	J028	0.711	0.206	0.291	0.356	0.411	0.504	.581	0.650	0.919	1.30	1.72	
	x	J030	0.762	0.236	0.334	0.409	0.472	0.578	0.667	0.746	1.06	1.49	1.97	
	x	J032	0.813	0.269	0.380	0.466	0.538	0.614	0.709	0.851	1.203	1.702	2.251	
	x	J033	0.838	0.286	0.404	0.495	0.571	0.699	0.808	0.903	1.28	1.81	2.39	
	x	J035	0.889	0.321	0.454	0.556	0.642	0.786	0.907	1.014	1.43	2.03	2.68	
x	x	J040	1.02	0.420	0.593	0.727	0.839	1.03	1.19	1.33	1.88	2.65	3.51	
	x	J048	1.22	0.605	0.85609	1.048	1.211	1.381	1.596	1.914	2.707	3.828	5.064	
	x	J055	1.40	0.793	1.12	1.37	1.59	1.94	2.24	2.51	3.55	5.02	6.64	

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Needle Jet Nozzles

Series BB Needle Jet Nozzle

Nozzle Characteristics

The BB needle jet nozzle is designed to deliver a solid stream of water at a wide range of pressures.

Construction

All BB series nozzles are constructed of 316SS and are available with ArresTech plating as an option. The nozzles are designed for use in systems that operate up to 1000 psig.

Components

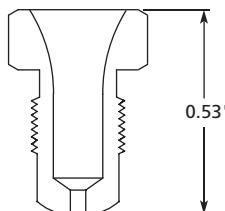
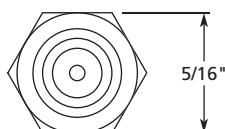
Nozzle, Jet



Nozzle Base*

124L – 1/4"-28

*Welded to shower – not normally replaced.



Jet Nozzle Ordering Information				
Nozzle Series	BB	4U	A	040
Connection			Construction Material	Orifice Number

Construction Material	Code
ArresTech Plated 316SS**	A
316SS	S
Duracerm	D
Ruby	R

Connection Size/Type	Code
1/4"- 28	4U

**Available for orifice sizes 0.023" and larger.

Series BB Needle Jet Nozzle



Flow Rate (Gallons per Minute)

Sizes Available			Orifice Number	Nozzle Orifice (inch)	Pressure (PSI)									
316 Stainless Steel	Duracerm	Ruby/ Sapphire			20	40	60	80	100	200	400	600	800	1000
		x	005	0.005	0.002	0.003	0.004	0.004	0.005	0.006	0.009	0.011	0.013	0.014
		x	008	0.008	0.005	0.007	0.009	0.010	0.012	0.016	0.023	0.028	0.033	0.037
		x	010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
		x	015	0.015	0.018	0.026	0.032	0.037	0.041	0.058	0.082	0.100	0.116	0.129
		x	018	0.018	0.026	0.037	0.046	0.053	0.059	0.083	0.118	0.144	0.167	0.186
x		x	020	0.020	0.033	0.046	0.056	0.065	0.073	0.103	0.146	0.178	0.206	0.230
			023	0.023	0.043	0.061	0.075	0.086	0.096	0.136	0.192	0.236	0.272	0.304
		x	024	0.024	0.047	0.066	0.081	0.094	0.105	0.148	0.210	0.257	0.297	0.332
		x	025	0.025	0.051	0.072	0.088	0.102	0.114	0.161	0.227	0.278	0.322	0.360
x		x	028	0.028	0.064	0.090	0.110	0.128	0.143	0.202	0.285	0.349	0.403	0.451
		x	030	0.030	0.073	0.104	0.127	0.146	0.164	0.232	0.327	0.401	0.463	0.518
x		x	033	0.033	0.089	0.125	0.153	0.177	0.198	0.280	0.396	0.485	0.560	0.626
		x	035	0.035	0.100	0.141	0.172	0.199	0.223	0.315	0.445	0.545	0.629	0.704
x	x	x	040	0.040	0.130	0.184	0.225	0.260	0.291	0.412	0.582	0.713	0.823	0.920
x			049	0.049	0.195	0.276	0.338	0.390	0.437	0.617	0.873	1.069	1.235	1.380
x		x	055	0.055	0.246	0.348	0.426	0.492	0.550	0.778	1.100	1.348	1.556	1.740
x			070	0.070	0.399	0.564	0.690	0.797	0.891	1.261	1.783	2.183	2.521	2.819
x			093	0.093	0.719	1.017	1.245	1.438	1.607	2.273	3.215	3.937	4.546	5.083
x			125	0.125	1.271	1.798	2.202	2.542	2.842	4.019	5.684	6.962	8.039	8.988

Flow Rate (Liters per Minute)

Sizes Available			Orifice Number	Nozzle Orifice (mm)	Pressure kPa (Bars)									
316 Stainless Steel	Duracerm	Ruby/ Sapphire			100	200	300	400	600	800	1000	2000	4000	7000
		x	005	0.127	0.007	0.009	0.011	0.013	0.016	0.019	0.021	0.029	0.041	0.055
		x	008	0.008	0.017	0.024	0.029	0.033	0.041	0.047	0.053	0.075	0.106	0.140
		x	010	0.254	0.026	0.037	0.045	0.052	0.064	0.074	0.083	0.117	0.166	0.219
		x	015	0.381	0.059	0.083	0.102	0.118	0.144	0.167	0.187	0.264	0.373	0.494
		x	018	0.457	0.085	0.120	0.147	0.170	0.208	0.240	0.269	0.380	0.537	0.711
x		x	020	0.508	0.105	0.148	0.182	0.210	0.257	0.297	0.332	0.469	0.663	0.877
			023	0.584	0.139	0.196	0.240	0.277	0.340	0.392	0.439	0.620	0.877	1.160
			024	0.610	1.359	1.922	2.354	2.719	3.102	3.583	4.298	6.079	8.596	11.372
		x	025	0.635	0.164	0.232	0.284	0.328	0.401	0.463	0.518	0.733	1.036	1.371
x		x	028	0.711	0.206	0.291	0.356	0.411	0.504	0.581	0.650	0.919	1.300	1.720
		x	030	0.762	0.236	0.334	0.409	0.472	0.578	0.667	0.746	1.055	1.492	1.974
x		x	033	0.838	0.286	0.404	0.495	0.571	0.699	0.808	0.903	1.277	1.806	2.389
		x	035	0.035	0.321	0.454	0.556	0.642	0.786	0.907	1.014	1.435	2.029	2.684
x	x	x	040	1.016	0.420	0.593	0.727	0.839	1.028	1.187	1.327	1.876	2.653	3.510
x			049	1.245	0.631	0.892	1.093	1.262	1.439	1.663	1.995	2.821	3.990	5.278
x		x	055	1.397	0.793	1.122	1.374	1.586	1.943	2.243	2.508	3.547	5.016	6.636
x			070	1.780	1.280	1.820	2.230	2.570	3.150	3.630	4.060	5.746	8.126	10.749
x			093	2.360	2.320	3.280	4.010	4.630	5.680	6.550	7.330	10.361	14.653	19.384
x			125	3.180	4.100	5.790	7.100	8.190	10.000	11.600	13.000	18.322	25.911	34.278

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Needle Jet Nozzles

Series SB Silver Bullet Needle Jet Nozzle

Nozzle Characteristics

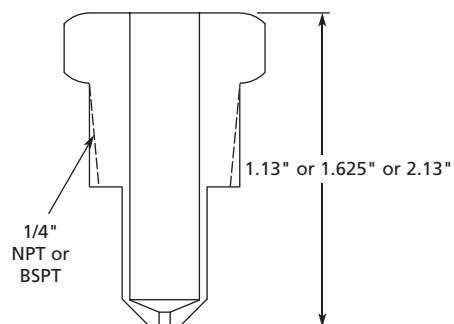
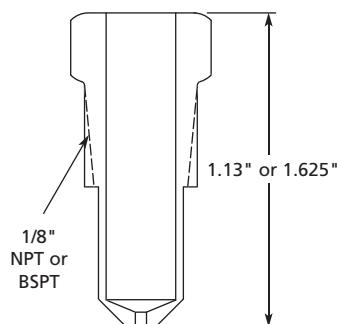
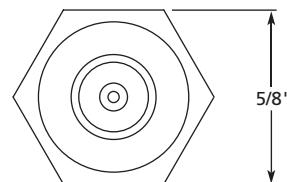
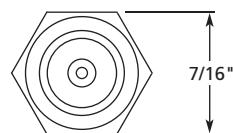
The SB needle jet nozzle is designed to deliver a solid stream of water at a wide range of pressures. An integral nozzle extension is included to prevent liquid from being drawn from the bottom of the pipe, preventing settled debris from plugging the nozzle. Please note that for optimum performance, the nozzle should only be installed on the lower half of the shower pipe (between 3 to 9 o'clock).

Construction

All SB series nozzles are constructed of 316SS and are available with optional ArresTech plating. The nozzles are designed for use in systems that operate up to 1000 psig.

Components

Nozzle, Jet



Jet Nozzle Ordering Information					
Nozzle Series	Connection	Length	Construction Material	Orifice Number	
SB	1/4	2	A	040	

Nozzle Length	Code
1.13"	1
1.625"	2
2.13"	3

Construction Material	Code
ArresTech Plated 316SS	A
316SS	S

Available for orifice sizes 0.023" and larger.

Connection Size/Type	Code
1/8" NPT	1/8
1/4" NPT	1/4
1/8" BSPT	2B
1/4" BSPT	4B
1/8" BSPP	2P
1/4" BSPP	4P
9/16"- 9/24" UNEF	9U



Series SB Silver Bullet Needle Jet Nozzle

Flow Rate (Gallons per Minute)

Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)									
		20	40	60	80	100	200	400	600	800	1000
010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
014	0.014	0.016	0.023	0.028	0.032	0.036	0.050	0.071	0.087	0.101	0.113
020	0.020	0.033	0.046	0.056	0.065	0.073	0.103	0.146	0.178	0.206	0.230
028	0.028	0.064	0.090	0.110	0.128	0.143	0.202	0.285	0.349	0.403	0.451
033	0.033	0.089	0.125	0.153	0.177	0.198	0.280	0.396	0.485	0.560	0.626
038	0.038	0.117	0.166	0.203	0.235	0.263	0.371	0.525	0.643	0.743	0.831
040	0.040	0.130	0.184	0.225	0.260	0.291	0.412	0.582	0.713	0.823	0.920
047	0.047	0.180	0.254	0.311	0.359	0.402	0.568	0.804	0.984	1.14	1.27
055	0.055	0.246	0.348	0.426	0.492	0.550	0.778	1.10	1.35	1.56	1.74
061	0.061	0.303	0.428	0.524	0.605	0.677	0.957	1.35	1.66	1.91	2.14
067	0.067	0.365	0.516	0.632	0.730	0.817	1.15	1.63	2.00	2.31	2.58
070	0.070	0.399	0.564	0.690	0.797	0.891	1.26	1.78	2.18	2.52	2.82
078	0.078	0.495	0.700	0.857	0.990	1.11	1.57	2.21	2.71	3.13	3.50
086	0.086	0.602	0.851	1.04	1.20	1.35	1.90	2.69	3.30	3.81	4.25
093	0.093	0.719	1.02	1.24	1.44	1.61	2.27	3.21	3.94	4.55	5.08
107	0.107	0.931	1.32	1.61	1.86	2.08	2.95	4.17	5.10	5.89	6.59
125	0.125	1.27	1.80	2.20	2.54	2.84	4.02	5.68	6.96	8.04	8.99
141	0.141	1.62	2.29	2.80	3.23	3.62	5.11	7.23	8.86	10.2	11.4
156	0.156	1.98	2.80	3.43	3.96	4.43	6.26	8.85	10.8	12.5	14.0
172	0.172	2.41	3.40	4.17	4.81	5.38	7.61	10.8	13.2	15.2	17.0
187	0.187	2.88	4.07	4.98	5.75	6.43	9.09	12.9	15.7	18.2	20.3
203	0.203	3.35	4.74	5.81	6.70	7.50	10.6	15.0	18.4	21.2	23.7
219	0.219	3.90	5.52	6.76	7.80	8.72	12.3	17.4	21.4	24.7	27.6

Flow Rate (Liters per Minute)

Nozzle Number	Nozzle Orifice (mm)	Pressure kPa (Bars)									
		100	200	300	400	600	800	1000	2000	4000	7000
		1.0	2.0	3.0	4.0	6.0	8.0	10.0	20.0	40.0	70.0
010	0.254	0.026	0.037	0.045	0.052	0.064	0.074	0.083	0.117	0.166	0.219
014	0.356	0.051	0.073	0.089	0.103	0.126	0.145	0.162	0.230	0.325	0.430
020	0.508	0.105	0.148	0.182	0.210	0.257	0.297	0.332	0.469	0.663	0.877
028	0.711	0.206	0.291	0.356	0.411	0.504	0.581	0.650	0.919	1.300	1.720
033	0.838	0.286	0.404	0.495	0.571	0.699	0.808	0.903	1.277	1.806	2.389
038	0.965	0.379	0.535	0.656	0.757	0.927	1.071	1.197	1.693	2.394	3.167
040	1.02	0.420	0.593	0.727	0.839	1.028	1.187	1.327	1.876	2.653	3.510
047	1.19	0.579	0.819	1.003	1.158	1.419	1.638	1.831	2.590	3.663	4.845
055	1.40	0.793	1.122	1.374	1.586	1.943	2.243	2.508	3.547	5.016	6.636
061	1.55	0.976	1.380	1.690	1.951	2.390	2.759	3.085	4.363	6.170	8.162
067	1.70	1.177	1.664	2.038	2.354	2.883	3.329	3.722	5.263	7.443	9.846
070	1.78	1.280	1.820	2.230	2.570	3.150	3.630	4.060	5.746	8.126	10.749
078	1.98	1.600	2.260	2.760	3.190	3.910	4.510	5.040	7.133	10.088	13.345
086	2.18	1.940	2.740	3.360	3.880	4.750	5.480	6.130	8.672	12.263	16.223
093	2.36	2.320	3.280	4.010	4.630	5.680	6.550	7.330	10.361	14.653	19.384
107	2.72	3.000	4.240	5.200	6.000	7.350	8.490	9.490	13.423	18.984	25.113
125	3.18	4.100	5.790	7.100	8.190	10.000	11.600	13.000	18.322	25.911	34.278
141	3.58	5.210	7.370	9.030	10.400	12.800	14.700	16.500	23.310	32.965	43.608
156	3.96	6.380	9.020	11.100	12.800	15.600	18.000	20.200	28.537	40.357	53.388
172	4.37	7.760	11.000	13.400	15.500	19.000	21.900	24.500	34.686	49.053	64.892
187	4.75	9.270	13.100	16.100	18.500	22.700	26.200	29.300	41.445	58.612	77.537
203	5.16	10.800	15.300	18.700	21.600	26.500	30.600	34.200	48.316	68.329	90.391
219	5.56	12.600	17.800	21.800	25.200	30.800	35.600	39.800	56.240	79.535	105.216

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Fan Nozzles



Products

- ▶ Series VF "V" Fan Nozzle 16
- ▶ Series VH "V" Fan Insert Nozzle 25
- ▶ Series FF Flood Fan Nozzle 34
- ▶ Series FH Flood Fan Insert Nozzle 37
- ▶ Series FL Flat Fan Nozzle 40

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

"V" Fan Nozzles



Series VF "V" Fan Nozzle

Nozzle Characteristics

The VF Series "V" fan nozzle produces a flat fan-shaped spray pattern. It is available in a wide range of angles from 15° to 110° measured at 40 psig. The nozzle is available with an optional 316SS, 50 mesh screen.

Construction

All VF Series nozzles are constructed of 316SS and are available with ArresTech plating as an option. The nozzles are designed for use in systems that operate up to 300 psig.

Components



"V" Fan Nozzle



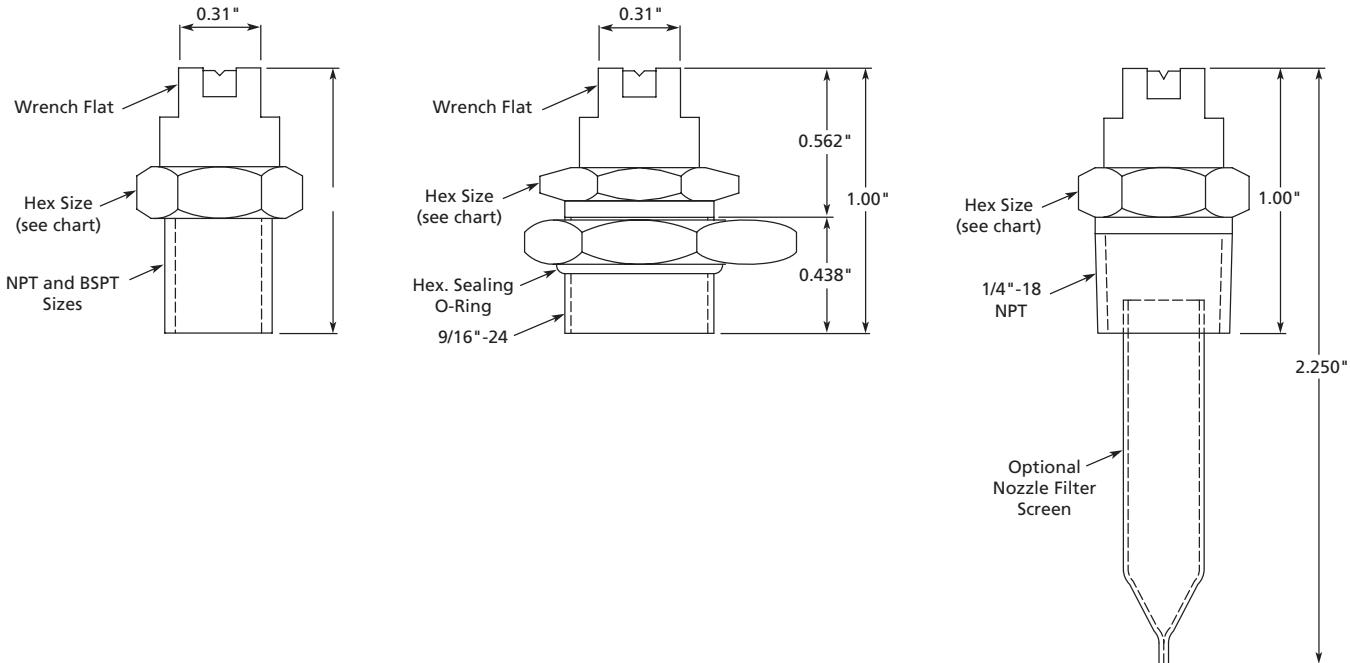
Base, Nozzle*

124N – 9/16"-24

A24111 – 1/8" NPT

A23397 – 1/4" NPT

*Welded to shower – not normally replaced.



Fan Nozzle Ordering Information				
Nozzle Series	Connection	Construction Material	Fan/Orifice Number	Filter
VF	9U	A	015040	F

Construction Material	Code
ArresTech Plated 316SS	A
316SS	S

Filter	Code
No Filter	-
50 Mesh Screen	F

Connection	Code	HexSize A
1/4" NPT	1/4	0.625"
1/8" NPT	1/8	0.625"
1/4" BSPT	2B	0.625"
1/4" BSPT	4B	0.625"
9/16" - 24	9U	0.625"
3/8" NPT	3/8	0.75"
1/2" NPT	1/2	1.0"
3/4" NPT	3/4	1.25"

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series VF "V" Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
N/A	000000	0	Nozzle Blank (316SS) - Used to Disable Flow										
15	15026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	10	15	24
	15036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	10	15	24
	15040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	10	15	24
	15043	0.043	0.212	0.300	0.367	.424	0.474	0.581	0.671	0.822	11	15	24
	15052	0.052	0.283	0.400	0.490	.566	0.632	0.775	0.894	1.10	11	15	21
	15055	0.055	0.315	0.445	0.545	.629	0.704	0.862	0.995	1.22	11	15	21
	15062	0.062	0.424	0.600	0.735	.849	0.949	1.16	1.34	1.64	11	15	21
	15070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	11	15	20
	15078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	10	15	19
	15093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	10	15	19
	15109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	10	15	19
	15141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	10	15	19
	15156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	10	15	18
	15172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	11	15	18
	15187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	11	15	18
	15203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	11	15	18
25	25026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	14	25	34
	25036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	15	25	33
	25043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	14	25	33
	25052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	15	25	33
	25057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	16	25	32
	25062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	17	25	31
	25072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	17	25	31
	25078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	18	25	31
	25093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	18	25	31
	25109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	19	25	31
	25141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	19	25	31
	25156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	21	25	29
	25172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	21	25	29
	25187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	22	25	29
	25203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	22	25	29
30	30055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	21	30	37
	30070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	22	30	36
	30093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	23	30	36
	30156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	26	30	34
	30187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	27	30	34
	30219	0.219	5.66	8.00	9.80	11.30	12.60	15.5	17.9	21.9	27	30	34
	30250	0.250	7.07	10.0	12.2	14.1	15.8	19.4	22.4	27.4	25	30	33
40	40026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	26	40	52
	40031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	27	40	52
	40036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	29	40	51
	40043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	30	40	50

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VF "V" Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
40	40052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	30	40	50
	40057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	31	40	49
	40062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	31	40	49
	40072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	31	40	47
	40078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	32	40	45
	40093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	32	40	45
	40109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	32	40	45
	40141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	33	40	45
	40156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	34	40	45
	40172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	35	40	45
	40187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	35	40	45
	40203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	35	40	45
	40250	0.250	7.07	10.00	12.20	14.10	15.8	19.4	22.4	27.4	35	40	43
45	45040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	35	45	55
	45055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	35	45	55
	45070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	36	45	53
	45093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	37	45	51
	45125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	38	45	50
	45156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	39	45	50
	45187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	40	45	50
50	50026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	37	50	59
	50036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	39	50	57
	50043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	40	50	56
	50052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	42	50	56
	50057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	44	50	56
	50062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	45	50	56
	50072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	45	50	55
	50078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	45	50	55
	50093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	45	50	55
	50109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	45	50	55
	50141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	45	50	55
	50156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	46	50	54
	50172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	46	50	54
	50187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	46	50	54
	50203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	46	50	54
60	60026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	47	60	69
	60033	0.033	0.120	0.170	0.208	0.240	0.269	0.329	0.380	0.466	49	60	67
	60040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	50	60	66
	60055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	52	60	66
	60070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	54	60	65
	60093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	55	60	65
	60125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	54	60	65
	60156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	54	60	65

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series VF "V" Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
65	65013	0.013	0.018	0.025	0.031	0.035	0.040	0.048	0.056	0.068	44	65	77
	65015	0.015	0.023	0.033	0.040	0.047	0.052	0.064	0.074	0.090	47	65	76
	65021	0.021	0.047	0.067	0.082	0.095	0.106	0.130	0.150	0.183	50	65	75
	65026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	51	65	74
	65028	0.028	0.085	0.120	0.147	0.170	0.190	0.232	0.268	0.329	51	65	74
	65031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	51	65	74
	65036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	52	65	73
	65040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	52	65	73
	65043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	53	65	72
	65052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	53	65	72
	65057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	53	65	72
	65062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	54	65	72
	65072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	55	65	71
	65078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	56	65	71
	65093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	56	65	70
	65109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	57	65	70
	65141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	58	65	69
	65156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	59	65	68
	65172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	60	65	68
	65187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	60	65	68
	65203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	60	65	68
73	73022	0.022	0.054	0.077	0.094	0.109	0.122	0.149	0.172	0.211	53	73	86
	73032	0.032	0.109	0.154	0.189	0.218	0.243	0.298	0.344	0.422	55	73	84
	73040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	56	73	83
	73045	0.045	0.218	0.308	0.377	0.436	0.487	0.596	0.689	0.843	58	73	82
	73056	0.056	0.327	0.462	0.566	0.653	0.730	0.895	1.03	1.27	60	73	80
	73072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	64	73	74
80	80018	0.018	0.035	0.050	0.061	0.071	0.079	0.097	0.112	0.137	61	80	95
	80021	0.021	0.047	0.067	0.082	0.095	0.106	0.130	0.150	0.183	67	80	94
	80026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	68	80	89
	80031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	68	80	89
	80036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	69	80	88
	80043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	70	80	87
	80052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	71	80	86
	80057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	71	80	86
	80062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	72	80	85
	80072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	72	80	84
	80078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	73	80	84
	80093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	74	80	83
	80109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	74	80	83
	80141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	74	80	83
	80156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	74	80	83

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VF "V" Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
80	80172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	74	80	83
	80187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	75	80	83
	80203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	75	80	83
90	90028	0.028	0.085	0.120	0.147	0.170	0.190	0.232	0.268	0.329	76	90	100
	90033	0.033	0.120	0.170	0.208	0.240	0.269	0.329	0.380	0.466	77	90	100
	90040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	78	90	99
	90043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	78	90	99
	90055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	79	90	97
	90070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	82	90	95
	90093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	84	90	95
	90125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	85	90	95
95	95018	0.018	0.035	0.050	0.061	0.071	0.079	0.097	0.112	0.137	81	95	105
	95026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	81	95	105
	95031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	82	95	105
	95036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	82	95	105
	95043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	83	95	104
	95052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	84	95	103
	95057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	84	95	102
	95062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	86	95	101
	95072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	87	95	100
	95078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	89	95	100
	95093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	90	95	100
	95109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	90	95	100
	95141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	91	95	101
	95156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	92	95	100
	95172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	93	95	99
	95187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	93	95	99
	95203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	93	95	99
110	110022	0.022	0.054	0.077	0.094	0.109	0.122	0.149	0.172	0.211	94	110	121
	110026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	94	110	121
	110031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	97	110	110
	110036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	98	110	120
	110043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	99	110	120
	110052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	100	110	119
	110055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	100	110	118
	110062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	101	110	117
	110070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	102	110	117
	110078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	103	110	117
	110093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	104	110	117
	110109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	105	110	118

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VF "V" Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100	200	300	400	500	1000	1500	2000	138	275	552
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52
N/A	000000	0	Nozzle Blank (316SS) - Used to Disable Flow										
15	15026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	10	15	24
	15036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	10	15	24
	15040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	10	15	24
	15043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	11	15	24
	15052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	11	15	21
	15055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	11	15	21
	15062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	11	15	21
	15070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	11	15	20
	15078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	10	15	19
	15093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	10	15	19
	15109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	10	15	19
	15141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	10	15	19
	15156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	10	15	18
	15172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	11	15	18
	15187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	11	15	18
	15203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	11	15	18
25	25026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	14	25	34
	25036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	15	25	33
	25043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	14	25	33
	25052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	15	25	33
	25057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	16	25	32
	25062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	17	25	31
	25072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	17	25	31
	25078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	18	25	31
	25093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	18	25	31
	25109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	19	25	31
	25141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	19	25	31
	25156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	21	25	29
	25172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	21	25	29
	25187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	22	25	29
	25203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	22	25	29
30	30055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	21	30	37
	30070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	22	30	36
	30093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	23	30	36
	30156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	26	30	34
	30187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	27	30	34
	30219	5.56	18.2	25.8	31.6	36.5	40.8	57.7	70.6	81.5	27	30	34
	30250	6.35	22.8	32.2	39.5	45.6	51.0	72.1	88.3	102.0	25	30	33
40	40026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	26	40	52
	40031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	27	40	52
	40036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	29	40	51

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VF "V" Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138	275	552
40	40043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	30	40	50
	40052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	30	40	50
	40057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	31	40	49
	40062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	31	40	49
	40072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	31	40	47
	40078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	32	40	45
	40093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	32	40	45
	40109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	32	40	45
	40141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	33	40	45
	40156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	34	40	45
	40172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	35	40	45
	40187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	35	40	45
	40203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	35	40	45
	40250	6.35	22.8	32.2	39.5	45.6	51.0	64.9	79.4	91.7	35	40	43
45	45040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	35	45	55
	45055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	35	45	55
	45070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	36	45	53
	45093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	37	45	51
	45125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	38	45	50
	45156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	39	45	50
	45187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	40	45	50
50	50026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	37	50	59
	50036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	39	50	57
	50043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	40	50	56
	50052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	42	50	56
	50057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	44	50	56
	50062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	45	50	56
	50072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	45	50	55
	50078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	45	50	55
	50093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	45	50	55
	50109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	45	50	55
	50141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	45	50	55
	50156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	46	50	54
	50172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	46	50	54
	50187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	46	50	54
	50203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	46	50	54
60	60026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	47	60	69
	60033	0.838	0.387	0.548	0.671	0.775	0.866	1.23	1.50	1.73	49	60	67
	60040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	50	60	66
	60055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	52	60	66
	60070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	54	60	65
	60093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	55	60	65

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series VF "V" Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100	200	300	400	500	1000	1500	2000	138	275	552
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52
60	60125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	54	60	65
	60156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	54	60	65
65	65013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	44	65	77
	65015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	47	65	76
	65021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	50	65	75
	65026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	51	65	74
	65028	0.711	0.273	0.387	0.474	0.547	0.611	0.865	1.06	1.22	51	65	74
	65031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	51	65	74
	65036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	52	65	73
	65040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	52	65	73
	65043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	53	65	72
	65052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	53	65	72
	65057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	53	65	72
	65062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	54	65	72
	65072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	55	65	71
	65078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	56	65	71
	65093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	56	65	70
	65109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	57	65	70
	65141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	58	65	69
	65156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	59	65	68
	65172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	60	65	68
	65187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	60	65	68
	65203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	60	65	68
73	73022	.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	53	73	86
	73032	.813	0.351	0.496	0.608	0.702	0.785	1.11	1.36	1.57	55	73	84
	73040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	56	73	83
	73045	1.14	0.702	0.993	1.22	1.40	1.57	2.22	2.72	3.14	58	73	82
	73056	1.42	1.05	1.49	1.82	2.11	2.35	3.33	4.08	4.71	60	73	80
	73072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	64	73	74
80	80018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	61	80	95
	80021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	67	80	94
	80026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	68	80	89
	80031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	68	80	89
	80036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	69	80	88
	80043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	70	80	87
	80052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	71	80	86
	80057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	71	80	86
	80062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	72	80	85
	80072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	72	80	84
	80078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	73	80	84
	80093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	74	80	83
	80109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	74	80	83

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VF "V" Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138 1.38	275 2.75	552 5.52
80	80141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	74	80	83
	80156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	74	80	83
	80172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	74	80	83
	80187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	75	80	83
	80203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	75	80	83
90	90028	0.711	0.273	0.387	0.474	0.547	0.611	0.865	1.06	1.22	76	90	100
	90033	0.838	0.387	0.548	0.671	0.775	0.866	1.23	1.50	1.73	77	90	100
	90040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	78	90	99
	90043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	78	90	99
	90055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	79	90	97
	90070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	82	90	95
	90093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	84	90	95
	90125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	85	90	95
95	95018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	81	95	105
	95026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	81	95	105
	95031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	82	95	105
	95036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	82	95	105
	95043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	83	95	104
	95052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	84	95	103
	95057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	84	95	102
	95062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	86	95	101
	95072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	87	95	100
	95078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	89	95	100
	95093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	90	95	100
	95109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	90	95	100
	95141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	91	95	101
	95156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	92	95	100
	95172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	93	95	99
	95187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	93	95	99
	95203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	93	95	99
110	110022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	94	110	121
	110026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	94	110	121
	110031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	97	110	110
	110036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	98	110	120
	110043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	99	110	120
	110052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	100	110	119
	110055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	100	110	118
	110062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	101	110	117
	110070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	102	110	117
	110078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	103	110	117
	110093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	104	110	117
	110109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	105	110	118

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Fan Insert Nozzles

Series VH "V" Fan Insert Nozzle

Nozzle Characteristics

The VH "V" series fan insert nozzle produces a flat uniform fan spray pattern. It's available in a wide range of angles from 15° to 110°. The VH nozzle insert can be used in place of a DF or DJ series nozzle disc, or a FH nozzle insert. The optional extension tube is available for nozzles installed on the bottom of a shower pipe (3 to 9 o'clock) to prevent debris from being drawn from the bottom of the pipe and into the nozzle, causing it to plug.

Construction

All VH series nozzles are constructed of 316SS and are available with ArresTech plating as an option. The nozzles are designed for use in systems that operate up to 300 psig.

Components



Nut, Nozzle Retainer

3/4"-27 UNS

2007 – 316SS

B36766 – 316SS with ArresTech plating



"V" Hood



Extension Tube (left)

A-19691 Extension Tube, Internal, 1.2"

Spacer (right)

2148 (nylon)

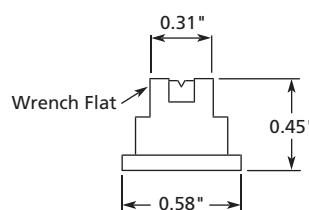
2148A (316SS)



Base Nozzle

3/4"-27 UNS

2006C – Base Nozzle



Fan Nozzle Ordering Information			
Nozzle Series	VH	S	015040 Fan/Orifice Number

Construction Material	Code
ArresTech Plated 316SS	A
316SS	S



Series VH "V" Fan Insert Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Fan/Orifice Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
N/A	000000	0	Nozzle Blank (316SS) - Used to Disable Flow										
15	15026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	10	15	24
	15036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	10	15	24
	15040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	10	15	24
	15043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	11	15	24
	15052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	11	15	21
	15055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	11	15	21
	15062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	11	15	21
	15070	0.070	0.530	0.750	.919	1.06	1.19	1.45	1.68	2.05	11	15	20
	15078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	10	15	19
	15093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	10	15	19
	15109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	10	15	19
	15141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	10	15	19
	15156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	10	15	18
	15172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	11	15	18
	15187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	11	15	18
	15203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	11	15	18
25	25026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	14	25	34
	25036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	15	25	33
	25043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	14	25	33
	25052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	15	25	33
	25057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	16	25	32
	25062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	17	25	31
	25072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	17	25	31
	25078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	18	25	31
	25093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	18	25	31
	25109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	19	25	31
	25141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	19	25	31
	25156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	21	25	29
	25172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	21	25	29
	25187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	22	25	29
	25203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	22	25	29
30	30055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	21	30	37
	30070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	22	30	36
	30093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	23	30	36
	30156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	26	30	34
	30187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	27	30	34
	30219	0.219	5.66	8.00	9.80	11.30	12.60	15.5	17.9	21.9	27	30	34
	30250	0.250	7.07	10.0	12.2	14.1	15.8	19.4	22.4	27.4	25	30	33
40	40026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	26	40	52
	40031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	27	40	52
	40036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	29	40	51
	40043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	30	40	50

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
40	40052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	30	40	50
	40057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	31	40	49
	40062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	31	40	49
	40072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	31	40	47
	40078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	32	40	45
	40093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	32	40	45
	40109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	32	40	45
	40141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	33	40	45
	40156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	34	40	45
	40172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	35	40	45
	40187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	35	40	45
	40203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	35	40	45
	40250	0.250	7.07	10.00	12.20	14.10	15.8	19.4	22.4	27.4	35	40	43
45	45040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	35	45	55
	45055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	35	45	55
	45070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	36	45	53
	45093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	37	45	51
	45125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	38	45	50
	45156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	39	45	50
	45187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	40	45	50
50	50026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	37	50	59
	50036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	39	50	57
	50043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	40	50	56
	50052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	42	50	56
	50057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	44	50	56
	50062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	45	50	56
	50072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	45	50	55
	50078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	45	50	55
	50093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	45	50	55
	50109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	45	50	55
	50141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	45	50	55
	50156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	46	50	54
	50172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	46	50	54
	50187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	46	50	54
	50203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	46	50	54
60	60026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	47	60	69
	60033	0.033	0.120	0.170	0.208	0.240	0.269	0.329	0.380	0.466	49	60	67
	60040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	50	60	66
	60055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	52	60	66
	60070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	54	60	65
	60093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	55	60	65
	60125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	54	60	65
	60156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	54	60	65

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Fan/Orifice Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
65	65013	0.013	0.018	0.025	0.031	0.035	0.040	0.048	0.056	0.068	44	65	77
	65015	0.015	0.023	0.033	0.040	0.047	0.052	0.064	0.074	0.090	47	65	90
	65021	0.021	0.047	0.067	0.082	0.095	0.106	0.130	0.150	.183	50	65	75
	65026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	51	65	74
	65028	0.028	0.085	0.120	0.147	0.170	0.190	0.232	0.268	0.329	51	65	74
	65031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	51	65	74
	65036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	52	65	73
	65040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	52	65	73
	65043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	53	65	72
	65052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	53	65	72
	65057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	53	65	72
	65062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	54	65	72
	65072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	55	65	71
	65078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	56	65	71
	65093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	56	65	70
	65109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	57	65	70
	65141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	58	65	69
	65156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	59	65	68
	65172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	60	65	68
	65187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	60	65	68
	65203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	60	65	68
73	73022	0.022	0.054	0.077	0.094	0.109	0.122	0.149	0.172	0.211	53	73	86
	73032	0.032	0.109	0.154	0.189	0.218	0.243	0.298	0.344	0.422	55	73	84
	73040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	56	73	83
	73045	0.045	0.218	0.308	0.377	0.436	0.487	0.596	0.689	0.843	58	73	82
	73056	0.056	0.327	0.462	0.566	0.653	0.730	0.895	1.03	1.27	60	73	80
	73072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	64	73	74
80	80018	0.018	0.035	0.050	0.061	0.071	0.079	0.097	0.112	0.137	61	80	95
	80021	0.021	0.047	0.067	0.082	0.095	0.106	0.130	0.150	0.183	67	80	94
	80026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	68	80	89
	80031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	68	80	89
	80036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	69	80	88
	80043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	70	80	87
	80052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	71	80	86
	80057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	71	80	86
	80062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	72	80	85
	80072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	72	80	84
	80078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	73	80	84
	80093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	74	80	83
	80109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	74	80	83
	80141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	74	80	83
	80156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	74	80	83

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
80	80172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	74	80	83
	80187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	75	80	83
	80203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	75	80	83
90	90028	0.028	0.085	0.120	0.147	0.170	0.190	0.232	0.268	0.329	76	90	100
	90033	0.033	0.120	0.170	0.208	0.240	0.269	0.329	0.380	0.466	77	90	100
	90040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685	78	90	99
	90043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	78	90	99
	90055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	79	90	97
	90070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	82	90	95
	90093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	84	90	95
	90125	0.125	1.77	2.50	3.06	3.54	3.95	4.84	5.59	6.85	85	90	95
95	95018	0.018	0.035	0.050	0.061	0.071	0.079	0.097	0.112	0.137	81	95	105
	95026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	81	95	105
	95031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	82	95	105
	95036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	82	95	105
	95043	0.043	0.212	0.300	0.367	0.424	0.4740	0.581	0.671	0.822	83	95	104
	95052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	84	95	103
	95057	0.057	0.354	0.500	0.612	0.707	0.791	0.968	1.12	1.37	84	95	102
	95062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	86	95	101
	95072	0.072	0.566	0.800	0.980	1.13	1.26	1.55	1.79	2.19	87	95	100
	95078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	89	95	100
	95093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	90	95	100
	95109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	90	95	100
	95141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	91	95	101
	95156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	92	95	100
	95172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.2	13.7	93	95	99
	95187	0.187	4.24	6.00	7.35	8.49	9.49	11.6	13.4	16.4	93	95	99
	95203	0.203	4.95	7.00	8.57	9.90	11.1	13.6	15.7	19.2	93	95	99
110	110022	0.022	0.054	0.077	0.094	0.109	0.122	0.149	0.172	0.211	94	110	121
	110026	0.026	0.071	0.100	0.122	0.141	0.158	0.194	0.224	0.274	94	110	121
	110031	0.031	0.106	0.150	0.184	0.212	0.237	0.290	0.335	0.411	97	110	110
	110036	0.036	0.141	0.200	0.245	0.283	0.316	0.387	0.447	0.548	98	110	120
	110043	0.043	0.212	0.300	0.367	0.424	0.474	0.581	0.671	0.822	99	110	120
	110052	0.052	0.283	0.400	0.490	0.566	0.632	0.775	0.894	1.10	100	110	119
	110055	0.055	0.315	0.445	0.545	0.629	0.704	0.862	0.995	1.22	100	110	118
	110062	0.062	0.424	0.600	0.735	0.849	0.949	1.16	1.34	1.64	101	110	117
	110070	0.070	0.530	0.750	0.919	1.06	1.19	1.45	1.68	2.05	102	110	117
	110078	0.078	0.707	1.00	1.22	1.41	1.58	1.94	2.24	2.74	103	110	117

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*			
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138	275	552	
N/A	000000	0	Nozzle Blank (316SS) - Used to Disable Flow											
15	15026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	10	15	24	
	15036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	10	15	24	
	15040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	10	15	24	
	15043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	11	15	24	
	15052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	11	15	21	
	15055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	11	15	21	
	15062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	11	15	21	
	15070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	11	15	20	
	15078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	10	15	19	
	15093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	10	15	19	
	15109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	10	15	19	
	15141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	10	15	19	
	15156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	10	15	18	
	15172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	11	15	18	
	15187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	11	15	18	
	15203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	11	15	18	
25	25026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	14	25	34	
	25036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	15	25	33	
	25043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	14	25	33	
	25052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	15	25	33	
	25057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	16	25	32	
	25062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	17	25	31	
	25072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	17	25	31	
	25078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	18	25	31	
	25093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	18	25	31	
	25109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	19	25	31	
	25141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	19	25	31	
	25156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	21	25	29	
	25172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	21	25	29	
	25187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	22	25	29	
	25203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	22	25	29	
30	30055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	21	30	37	
	30070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	22	30	36	
	30093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	23	30	36	
	30156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	26	30	34	
	30187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	27	30	34	
	30219	5.56	18.2	25.8	31.6	36.5	40.8	57.7	70.6	81.5	27	30	34	
	30250	6.35	22.8	32.2	39.5	45.6	51.0	72.1	88.3	102	25	30	33	
40	40026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	26	40	52	
	40031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	27	40	52	
	40036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	29	40	51	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138 1.38	275 2.75	552 5.52
40	40043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	30	40	50
	40052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	30	40	50
	40057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	31	40	49
	40062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	31	40	49
	40072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	31	40	47
	40078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	32	40	45
	40093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	32	40	45
	40109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	32	40	45
	40141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	33	40	45
	40156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	34	40	45
	40172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	35	40	45
	40187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	35	40	45
	40203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	35	40	45
	40250	6.35	22.8	32.2	39.5	45.6	51.0	64.9	79.4	91.7	35	40	43
45	45040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	35	45	55
	45055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	35	45	55
	45070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	36	45	53
	45093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	37	45	51
	45125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	38	45	50
	45156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	39	45	50
	45187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	40	45	50
50	50026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	37	50	59
	50036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	39	50	57
	50043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	40	50	56
	50052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	42	50	56
	50057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	44	50	56
	50062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	45	50	56
	50072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	45	50	55
	50078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	45	50	55
	50093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	45	50	55
	50109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	45	50	55
	50141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	45	50	55
	50156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	46	50	54
	50172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	46	50	54
	50187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	46	50	54
	50203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	46	50	54
60	60026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	47	60	69
	60033	0.838	0.387	0.548	0.671	0.775	0.866	1.23	1.50	1.73	49	60	67
	60040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	50	60	66
	60055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	52	60	66
	60070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	54	60	65
	60093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	55	60	65

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series VH "V" Fan Insert Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138 1.38	275 2.75	552 5.52
60	60125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	54	60	65
	60156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	54	60	65
65	65013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	44	65	77
	65015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	47	65	76
	65021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	50	65	75
	65026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	51	65	74
	65028	0.711	0.273	0.387	0.474	0.547	0.611	0.865	1.06	1.22	51	65	74
	65031	0.787	0.342	0.483	.0592	0.684	0.764	1.08	1.32	1.53	51	65	74
	65036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	52	65	73
	65040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	52	65	73
	65043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	53	65	72
	65052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	53	65	72
	65057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	53	65	72
	65062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	54	65	72
	65072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	55	65	71
	65078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	56	65	71
	65093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	56	65	70
	65109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	57	65	70
	65141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	58	65	69
	65156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	59	65	68
	65172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	60	65	68
	65187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	60	65	68
	65203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	60	65	68
73	73022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	53	73	86
	73032	0.813	0.351	0.496	0.608	0.702	0.785	1.11	1.36	1.57	55	73	84
	73040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	56	73	83
	73045	1.14	0.702	0.993	1.22	1.40	1.57	2.22	2.72	3.14	58	73	82
	73056	1.42	1.05	1.49	1.82	2.11	2.35	3.33	4.08	4.71	60	73	80
	73072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	64	73	74
80	80018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	61	80	95
	80021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	67	80	94
	80026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	68	80	89
	80031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	68	80	89
	80036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	69	80	88
	80043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	70	80	87
	80052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	71	80	86
	80057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	71	80	86
	80062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	72	80	85
	80072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	72	80	84
	80078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	73	80	84
	80093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	74	80	83
	80109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	74	80	83

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series VH "V" Fan Insert Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bar)								Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138 1.38	275 2.75	552 5.52
80	80141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	74	80	83
	80156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	74	80	83
	80172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	74	80	83
	80187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	75	80	83
	80203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	75	80	83
90	90028	0.711	0.273	0.387	0.474	0.547	0.611	0.865	1.06	1.22	76	90	100
	90033	0.838	0.387	0.548	0.671	0.775	0.866	1.23	1.50	1.73	77	90	100
	90040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	78	90	99
	90043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	78	90	99
	90055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	79	90	97
	90070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	82	90	95
	90093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	84	90	95
	90125	3.18	5.70	8.06	9.87	11.4	12.7	18.0	22.1	25.5	85	90	95
95	95018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	81	95	105
	95026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	81	95	105
	95031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	82	95	105
	95036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	82	95	105
	95043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	83	95	104
	95052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	84	95	103
	95057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	84	95	102
	95062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	86	95	101
	95072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	87	95	100
	95078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	89	95	100
	95093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	90	95	100
	95109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	90	95	100
	95141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	91	95	101
	95156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	92	95	100
	95172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	93	95	99
	95187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	93	95	99
	95203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	93	95	99
110	110022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	94	110	121
	110026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	94	110	121
	110031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	97	110	110
	110036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	98	110	120
	110043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	99	110	120
	110052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	100	110	119
	110055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	100	110	118
	110062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	101	110	117
	110070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	102	110	117
	110078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	103	110	117
	110093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	104	110	117
	110109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	105	110	118

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

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Flood Fan Nozzles



Series FF Flood Fan Nozzle

Nozzle Characteristics

The FF series flood fan nozzle is available in two different body lengths. This allows alternating shower nozzles installed in a straight line on a pipe to spray parallel fan patterns that do not interfere. The flow is deflected from the centerline at an angle of 72° as shown on the drawing.

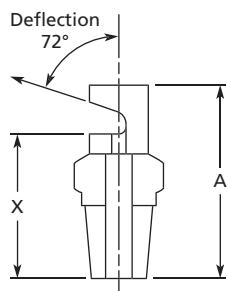
Construction

All FF series nozzles are constructed of 316SS and are available with ArresTech plating as an option. The nozzles are typically used in systems that operate at 100 psig or less.

Components



Fan Nozzle



Fan Nozzle Ordering Information					
Nozzle Series	FF	4B	H	A	090040

Nozzle Length		Code
A	X	
1.25"**	0.725"	L
1.25"**	0.850"	H
*Overall length A will be 1.35" for orifice sizes 0.129 " and larger.		
Construction Material		Code
ArresTech Plated 316SS**		A
316SS		S

Connection Size/Type	Code
1/4" NPT	1/4
1/8" NPT	1/8
1/4" BSPT	4B
1/8" BSPT	2B
9/16"-24	9U

Contact Kadant Solutions for sizes 3/8", 1/2", 3/4".

**Available for orifice sizes 0.023" and larger.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series FF Flood Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)										Fan Angle at psi*			
			15	20	25	30	40	50	60	70	80	90	20	40	80	
90	FF90014	0.014	0.031	0.035	0.040	0.043	0.050	0.056	0.061	0.066	0.071	0.075	0.079	74	90	90
	FF90024	0.024	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	74	90	90
	FF90028	0.028	0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.20	0.21	0.23	0.24	74	90	90
	FF90033	0.033	0.12	0.14	0.16	0.17	0.20	0.22	0.24	0.26	0.28	0.30	0.32	74	90	90
	FF90040	0.040	0.18	0.21	0.24	0.26	0.30	0.34	0.37	0.40	0.42	0.45	0.47	74	90	90
	FF90046	0.046	0.24	0.28	0.32	0.35	0.40	0.45	0.49	0.53	0.57	0.60	0.63	74	90	90
	FF90052	0.052	0.31	0.35	0.40	0.43	0.50	0.56	0.61	0.66	0.71	0.75	0.79	74	90	90
	FF90057	0.057	0.37	0.42	0.47	0.52	0.60	0.67	0.73	0.79	0.85	0.90	0.95	74	90	90
	FF90065	0.065	0.49	0.57	0.63	0.69	0.80	0.89	0.98	1.06	1.13	1.20	1.26	74	90	90
	FF90073	0.073	0.61	0.71	0.79	0.87	1.00	1.12	1.22	1.32	1.41	1.50	1.58	74	90	90
	FF90093	0.093	0.92	1.06	1.19	1.30	1.50	1.68	1.84	1.98	2.12	2.25	2.37	74	90	90
	FF90104	0.104	1.22	1.41	1.58	1.73	2.00	2.24	2.45	2.65	2.83	3.00	3.16	74	90	90
	FF90116	0.116	1.47	1.70	1.90	2.08	2.40	2.68	2.94	3.17	3.39	3.60	3.79	74	90	90
	FF90129	0.129	1.84	2.12	2.37	2.60	3.00	3.35	3.67	3.97	4.24	4.50	4.74	74	90	90
	FF90141	0.141	2.20	2.55	2.85	3.12	3.60	4.02	4.41	4.76	5.09	5.40	5.69	74	90	90
	FF90148	0.148	2.45	2.83	3.16	3.46	4.00	4.47	4.90	5.29	5.66	6.00	6.32	74	90	90
	FF90156	0.156	2.69	3.11	3.48	3.81	4.40	4.92	5.39	5.82	6.22	6.60	6.96	74	90	90
120	FF120014	0.014	0.031	0.035	0.040	0.043	0.050	0.056	0.061	0.066	0.071	0.075	0.079	100	120	120
	FF120024	0.024	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	100	120	120
	FF120028	0.028	0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.20	0.21	0.23	0.24	100	120	120
	FF120033	0.033	0.12	0.14	0.16	0.17	0.20	0.22	0.24	0.26	0.28	0.30	0.32	100	120	120
	FF120040	0.040	0.18	0.21	0.24	0.26	0.30	0.34	0.37	0.40	0.42	0.45	0.47	100	120	120
	FF120046	0.046	0.24	0.28	0.32	0.35	0.40	0.45	0.49	0.53	0.57	0.60	0.63	100	120	120
	FF120052	0.052	0.31	0.35	0.40	0.43	0.50	0.56	0.61	0.66	0.71	0.75	0.79	100	120	120
	FF120057	0.057	0.37	0.42	0.47	0.52	0.60	0.67	0.73	0.79	0.85	0.90	0.95	100	120	120
	FF120065	0.065	0.49	0.57	0.63	0.69	0.80	0.89	0.98	1.06	1.13	1.20	1.26	100	120	120
	FF120073	0.073	0.61	0.71	0.79	0.87	1.00	1.12	1.22	1.32	1.41	1.50	1.58	100	120	120
	FF120093	0.093	0.92	1.06	1.19	1.30	1.50	1.68	1.84	1.98	2.12	2.25	2.37	100	120	120
	FF120104	0.104	1.22	1.41	1.58	1.73	2.00	2.24	2.45	2.65	2.83	3.00	3.16	100	120	120
	FF120116	0.116	1.47	1.70	1.90	2.08	2.40	2.68	2.94	3.17	3.39	3.60	3.79	100	120	120
	FF120129	0.129	1.84	2.12	2.37	2.60	3.00	3.35	3.67	3.97	4.24	4.50	4.74	100	120	120
	FF120141	0.141	2.20	2.55	2.85	3.12	3.60	4.02	4.41	4.76	5.09	5.40	5.69	100	120	120
	FF120148	0.148	2.45	2.83	3.16	3.46	4.00	4.47	4.90	5.29	5.66	6.00	6.32	100	120	120
	FF120156	0.156	2.69	3.11	3.48	3.81	4.40	4.92	5.39	5.82	6.22	6.60	6.96	100	120	120
	FF120161	0.161	2.94	3.39	3.79	4.16	4.80	5.37	5.88	6.35	6.79	7.20	7.59	100	120	120
	FF120173	0.173	3.31	3.82	4.27	4.68	5.40	6.04	6.61	7.14	7.64	8.10	8.54	100	120	120
	FF120180	0.180	3.67	4.24	4.74	5.20	6.00	6.71	7.35	7.94	8.49	9.00	9.49	100	120	120
	FF120187	0.187	4.29	4.95	5.53	6.06	7.00	7.83	8.57	9.26	9.90	10.50	11.07	100	120	120
	FF120219	0.219	4.90	5.66	6.32	6.93	8.00	8.94	9.80	10.58	11.31	12.00	12.65	100	120	120

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Fan Nozzles Tab](#)



Series FF Flood Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bars)										Fan Angle at kPa (Bars)*			
			100 1.00	150 1.50	200 2.00	250 2.50	300 3.00	350 3.50	400 4.00	450 4.50	500 5.00	600 6.00	700 7.00	138 1.38	275 2.75	552 5.52
90	FF90014	0.356	0.114	0.140	0.161	0.180	0.197	0.213	0.228	0.242	0.255	0.279	0.301	74	90	90
	FF90024	0.61	0.23	0.28	0.32	0.36	0.39	0.43	0.46	0.48	0.51	0.56	0.60	74	90	90
	FF90028	0.71	0.34	0.42	0.48	0.54	0.59	0.64	0.68	0.73	0.76	0.84	0.90	74	90	90
	FF90033	0.84	0.46	0.56	0.64	0.72	0.79	0.85	0.91	0.97	1.02	1.12	1.21	74	90	90
	FF90040	1.02	0.68	0.84	0.97	1.08	1.18	1.28	1.37	1.45	1.53	1.67	1.81	74	90	90
	FF90046	1.17	0.91	1.12	1.29	1.44	1.58	1.71	1.82	1.93	2.04	2.23	2.41	74	90	90
	FF90052	1.32	1.14	1.40	1.61	1.80	1.97	2.13	2.28	2.42	2.55	2.79	3.01	74	90	90
	FF90057	1.45	1.37	1.67	1.93	2.16	2.37	2.56	2.73	2.90	3.06	3.35	3.62	74	90	90
	FF90065	1.65	1.82	2.23	2.58	2.88	3.16	3.41	3.65	3.87	4.08	4.47	4.82	74	90	90
	FF90073	1.85	2.28	2.79	3.22	3.60	3.95	4.26	4.56	4.83	5.10	5.58	6.03	74	90	90
	FF90093	2.36	3.42	4.19	4.83	5.40	5.92	6.40	6.84	7.25	7.64	8.37	9.04	74	90	90
	FF90104	2.64	4.56	5.58	6.45	7.21	7.89	8.53	9.12	9.67	10.19	11.16	12.06	74	90	90
	FF90116	2.95	5.47	6.70	7.73	8.65	9.47	10.23	10.94	11.60	12.23	13.40	14.47	74	90	90
	FF90129	3.28	6.84	8.37	9.67	10.81	11.84	12.79	13.67	14.50	15.29	16.75	18.09	74	90	90
	FF90141	3.58	8.20	10.05	11.60	12.97	14.21	15.35	16.41	17.40	18.34	20.10	21.71	74	90	90
	FF90148	3.76	9.12	11.16	12.89	14.41	15.79	17.05	18.23	19.34	20.38	22.33	24.12	74	90	90
	FF90156	3.96	10.03	12.28	14.18	15.85	17.37	18.76	20.05	21.27	22.42	24.56	26.53	74	90	90
120	FF120014	0.014	0.031	0.035	0.040	0.043	0.050	0.056	0.061	0.066	0.071	0.075	0.079	100	120	120
	FF120024	0.61	0.23	0.28	0.32	0.36	0.39	0.43	0.46	0.48	0.51	0.56	0.60	100	120	120
	FF120028	0.71	0.34	0.42	0.48	0.54	0.59	0.64	0.68	0.73	0.76	0.84	0.90	100	120	120
	FF120033	0.84	0.46	0.56	0.64	0.72	0.79	0.85	0.91	0.97	1.02	1.12	1.21	100	120	120
	FF120040	1.02	0.68	0.84	0.97	1.08	1.18	1.28	1.37	1.45	1.53	1.67	1.81	100	120	120
	FF120046	1.17	0.91	1.12	1.29	1.44	1.58	1.71	1.82	1.93	2.04	2.23	2.41	100	120	120
	FF120052	1.32	1.14	1.40	1.61	1.80	1.97	2.13	2.28	2.42	2.55	2.79	3.01	100	120	120
	FF120057	1.45	1.37	1.67	1.93	2.16	2.37	2.56	2.73	2.90	3.06	3.35	3.62	100	120	120
	FF120065	1.65	1.82	2.23	2.58	2.88	3.16	3.41	3.65	3.87	4.08	4.47	4.82	100	120	120
	FF120073	1.85	2.28	2.79	3.22	3.60	3.95	4.26	4.56	4.83	5.10	5.58	6.03	100	120	120
	FF120093	2.36	3.42	4.19	4.83	5.40	5.92	6.40	6.84	7.25	7.64	8.37	9.04	100	120	120
	FF120104	2.64	4.56	5.58	6.45	7.21	7.89	8.53	9.12	9.67	10.19	11.16	12.06	100	120	120
	FF120116	2.95	5.47	6.70	7.73	8.65	9.47	10.23	10.94	11.60	12.23	13.40	14.47	100	120	120
	FF120129	3.28	6.84	8.37	9.67	10.81	11.84	12.79	13.67	14.50	15.29	16.75	18.09	100	120	120
	FF120141	3.58	8.20	10.05	11.60	12.97	14.21	15.35	16.41	17.40	18.34	20.10	21.71	100	120	120
	FF120148	3.76	9.12	11.16	12.89	14.41	15.79	17.05	18.23	19.34	20.38	22.33	24.12	100	120	120
	FF120156	3.96	10.03	12.28	14.18	15.85	17.37	18.76	20.05	21.27	22.42	24.56	26.53	100	120	120
	FF120161	4.09	10.94	13.40	15.47	17.30	18.95	20.46	21.88	23.20	24.46	26.79	28.94	100	120	120
	FF120173	4.39	12.31	15.07	17.40	19.46	21.31	23.02	24.61	26.10	27.52	30.14	32.56	100	120	120
	FF120180	4.57	13.67	16.75	19.34	21.62	23.68	25.58	27.35	29.01	30.57	33.49	36.18	100	120	120
	FF120187	4.75	15.95	19.54	22.56	25.22	27.63	29.84	31.90	33.84	35.67	39.07	42.21	100	120	120
	FF120219	5.56	18.23	22.33	25.78	28.83	31.58	34.11	36.46	38.67	40.77	44.66	48.23	100	120	120

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Flood Fan Insert Nozzles

Series FH Flood Fan Insert Nozzle

Nozzle Characteristics

The FH series flood fan insert nozzle is available in two different body lengths. This allows alternating shower nozzles installed in a straight line on a pipe to spray parallel fan patterns that do not interfere. The flow is deflected from the center line at an angle of 75° as shown. The FH nozzle insert can be used in place of a DF or DJ series nozzle disc or the VH "V" Fan. The optional extension tube is available for nozzles installed on the bottom of a shower pipe (3 to 9 o'clock) to prevent debris from being drawn from the bottom of the pipe and into the nozzle, causing it to plug.

Construction

All FH series nozzles are constructed of 316SS. The nozzles are typically used in systems that operate at 100 psig or less. As an option, the nozzle retainer nut can be plated with ArresTech to prevent thread galling during installation.

Components



Nut, Nozzle Retainer

3/4"-27

2007B – 316SS

2007BA – 316SS with ArresTech plating



Hood Insert



Extension Tube (left)

A-19691 Extension Tube, Internal, 1.2"

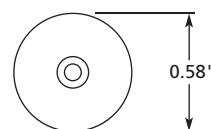
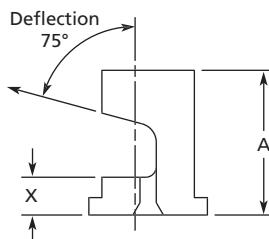


Base Nozzle – 316SS

3/4"-27*

2006C

*Welded to shower — not normally replaced.



Hood Insert Ordering Information				
Nozzle Series	FH	S	H	120040
Construction Material		Length		Fan/Orifice Number

Nozzle Length		Code
A	X	
0.71***	0.185"	S
0.71***	0.310"	H
**Overall length A will be 0.81" for orifice sizes 0.129" and larger.		
Construction Material		Code
316SS		S

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Fan Nozzles Tab](#)

Series FH Flood Fan Insert Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)										Fan Angle at psi*			
			15	20	25	30	40	50	60	70	80	90	100	20	40	80
120	FH120014	0.014	0.031	0.035	0.040	0.043	0.050	0.056	0.061	0.066	0.071	0.075	0.079	100	120	120
	FH120024	0.024	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	100	120	120
	FH120028	0.028	0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.20	0.21	0.23	0.24	100	120	120
	FH120033	0.033	0.12	0.14	0.16	0.17	0.20	0.22	0.24	0.26	0.28	0.30	0.32	100	120	120
	FH120040	0.040	0.18	0.21	0.24	0.26	0.30	0.34	0.37	0.40	0.42	0.45	0.47	100	120	120
	FH120046	0.046	0.24	0.28	0.32	0.35	0.40	0.45	0.49	0.53	0.57	0.60	0.63	100	120	120
	FH120052	0.052	0.31	0.35	0.40	0.43	0.50	0.56	0.61	0.66	0.71	0.75	0.79	100	120	120
	FH120057	0.057	0.37	0.42	0.47	0.52	0.60	0.67	0.73	0.79	0.85	0.90	0.95	100	120	120
	FH120065	0.065	0.49	0.57	0.63	0.69	0.80	0.89	0.98	1.06	1.13	1.20	1.26	100	120	120
	FH120073	0.073	0.61	0.71	0.79	0.87	1.00	1.12	1.22	1.32	1.41	1.50	1.58	100	120	120
	FH120093	0.093	0.92	1.06	1.19	1.30	1.50	1.68	1.84	1.98	2.12	2.25	2.37	100	120	120
	FH120104	0.104	1.22	1.41	1.58	1.73	2.00	2.24	2.45	2.65	2.83	3.00	3.16	100	120	120
	FH120116	0.116	1.47	1.70	1.90	2.08	2.40	2.68	2.94	3.17	3.39	3.60	3.79	100	120	120
	FH120129	0.129	1.84	2.12	2.37	2.60	3.00	3.35	3.67	3.97	4.24	4.50	4.74	100	120	120
	FH120141	0.141	2.20	2.55	2.85	3.12	3.60	4.02	4.41	4.76	5.09	5.40	5.69	100	120	120
	FH120148	0.148	2.45	2.83	3.16	3.46	4.00	4.47	4.90	5.29	5.66	6.00	6.32	100	120	120
	FH120156	0.156	2.69	3.11	3.48	3.81	4.40	4.92	5.39	5.82	6.22	6.60	6.96	100	120	120
	FH120161	0.161	2.94	3.39	3.79	4.16	4.80	5.37	5.88	6.35	6.79	7.20	7.59	100	120	120
	FH120173	0.173	3.31	3.82	4.27	4.68	5.40	6.04	6.61	7.14	7.64	8.10	8.54	100	120	120
	FH120180	0.180	3.67	4.24	4.74	5.20	6.00	6.71	7.35	7.94	8.49	9.00	9.49	100	120	120
	FH120187	0.187	4.29	4.95	5.53	6.06	7.00	7.83	8.57	9.26	9.90	10.50	11.07	100	120	120
	FH120219	0.219	4.90	5.66	6.32	6.93	8.00	8.94	9.80	10.58	11.31	12.00	12.65	100	120	120

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series FH Flood Fan Insert Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa	Code	Equivalent Orifice (mm)	Pressure kPa (Bars)												Fan Angle at kPa (Bars)*		
			100	150	200	250	300	350	400	450	500	600	700	138	275	552	
			1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	6.00	7.00	1.38	2.75	5.52	
120	FH120014	0.36	0.031	0.035	0.040	0.043	0.050	0.056	0.061	0.066	0.071	0.075	0.079	100	120	120	
	FH120024	0.61	0.23	0.28	0.32	0.36	0.39	0.43	0.46	0.48	0.51	0.56	0.60	100	120	120	
	FH120028	0.71	0.34	0.42	0.48	0.54	0.59	0.64	0.68	0.73	0.76	0.84	0.90	100	120	120	
	FH120033	0.84	0.46	0.56	0.64	0.72	0.79	0.85	0.91	0.97	1.02	1.12	1.21	100	120	120	
	FH120040	1.02	0.68	0.84	0.97	1.08	1.18	1.28	1.37	1.45	1.53	1.67	1.81	100	120	120	
	FH120046	1.17	0.91	1.12	1.29	1.44	1.58	1.71	1.82	1.93	2.04	2.23	2.41	100	120	120	
	FH120052	1.32	1.14	1.40	1.61	1.80	1.97	2.13	2.28	2.42	2.55	2.79	3.01	100	120	120	
	FH120057	1.45	1.37	1.67	1.93	2.16	2.37	2.56	2.73	2.90	3.06	3.35	3.62	100	120	120	
	FH120065	1.65	1.82	2.23	2.58	2.88	3.16	3.41	3.65	3.87	4.08	4.47	4.82	100	120	120	
	FH120073	1.85	2.28	2.79	3.22	3.60	3.95	4.26	4.56	4.83	5.10	5.58	6.03	100	120	120	
	FH120093	2.36	3.42	4.19	4.83	5.40	5.92	6.40	6.84	7.25	7.64	8.37	9.04	100	120	120	
	FH120104	2.64	4.56	5.58	6.45	7.21	7.89	8.53	9.12	9.67	10.19	11.16	12.06	100	120	120	
	FH120116	2.95	5.47	6.70	7.73	8.65	9.47	10.23	10.94	11.60	12.23	13.40	14.47	100	120	120	
	FH120129	3.28	6.84	8.37	9.67	10.81	11.84	12.79	13.67	14.50	15.29	16.75	18.09	100	120	120	
	FH120141	3.58	8.20	10.05	11.60	12.97	14.21	15.35	16.41	17.40	18.34	20.10	21.71	100	120	120	
	FH120148	3.76	9.12	11.16	12.89	14.41	15.79	17.05	18.23	19.34	20.38	22.33	24.12	100	120	120	
	FH120156	3.96	10.03	12.28	14.18	15.85	17.37	18.76	20.05	21.27	22.42	24.56	26.53	100	120	120	
	FH120161	4.09	10.94	13.40	15.47	17.30	18.95	20.46	21.88	23.20	24.46	26.79	28.94	100	120	120	
	FH120173	4.39	12.31	15.07	17.40	19.46	21.31	23.02	24.61	26.10	27.52	30.14	32.56	100	120	120	
	FH120180	4.57	13.67	16.75	19.34	21.62	23.68	25.58	27.35	29.01	30.57	33.49	36.18	100	120	120	
	FH120187	4.75	15.95	19.54	22.56	25.22	27.63	29.84	31.90	33.84	35.67	39.07	42.21	100	120	120	
	FH120219	5.56	18.23	22.33	25.78	28.83	31.58	34.11	36.46	38.67	40.77	44.66	48.23	100	120	120	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Flat Fan Nozzles

Series FL Flat Fan Nozzle



Nozzle Characteristics

The FL series flat fan nozzle delivers a flat pattern, concentrating the energy on the surface being sprayed for maximum cleaning efficiency. The flow is deflected away from the nozzle centerline by the angle shown.

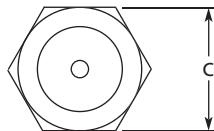
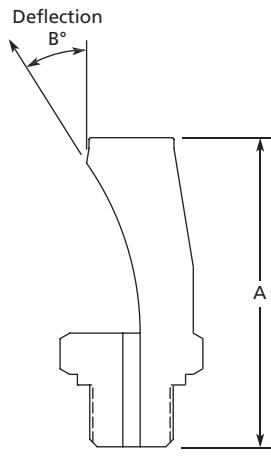
Construction

All FL series nozzles are constructed of 316SS. The nozzles are typically used in systems that operate at 150 psig or less.

Components



Flat Fan Nozzle



Flat Fan Nozzle Ordering Information				
Nozzle Series	FL	Connection	1/4	Construction Material
Fan/Orifice Number	040125			

Construction Material	Code
316SS	S

Connection Size/Type	Code
1/4" NPT	1/4
3/8" NPT	3/8
1/2" NPT	1/2
1/4" BSPT	1/4B
3/8" BSPT	3/8B
1/2" BSPT	1/2B

Contact Kadant Solutions for size 3/4".

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series FL Flat Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Code	Available Thread Sizes			Length (A)	(B) Deflection Angle (Deg)	Equivalent Orifice (inch)	Flow (GPM)								Fan Angle at psi*		
		1/4" NPT	3/8" NPT	1/2" NPT				Pressure (PSI)								15	40	100
		Hex Size C (inches)						15	20	30	40	60	80	100	150			
15	F15078	0.625			1.88	22	0.078		0.71	0.87	1.0	1.2	1.4	1.6	1.9		15	23
	F15187			1.0	2.65	32.2	0.187	4.3	4.9	6.1	7.0	8.6	9.9	11.1	13.6	10	15	19
	F15203			1.0	2.65	32.2	0.203	4.9	5.7	6.9	8.0	9.8	11.3	12.6	15.5	11	15	18
	F15219			1.0	2.65	32.2	0.219	5.5	6.4	7.8	9.0	11.0	12.7	14.2	17.4	11	15	18
	F15234			1.0	2.65	32.2	0.234	6.1	7.1	8.7	10.0	12.2	14.2	15.8	19.4	11	15	18
25	F25141	0.750			2.56	25	0.141	2.5	2.8	3.5	4.0	4.9	5.7	6.3	7.7	15	25	34
35	F35078	0.625			1.44	36	0.078	0.61	0.7	0.9	1.0	1.2	1.4	1.6	1.9	18	35	39
	F35109	0.750			1.66	30	0.109	1.2	1.4	1.7	2.0	2.4	2.8	3.2	3.9	24	35	40
	F35125		1.0		2.50	32.2	0.125	1.8	2.1	2.6	3	3.7	4.2	4.7	5.8	26	35	41
	F35141		1.0		2.50	32.2	0.141	2.5	2.8	3.5	4.0	4.9	5.7	6.3	7.7	28	35	38
	F35156		1.0		2.50	32.2	0.156	3.1	3.5	4.3	5.0	6.1	7.1	8.0	9.7	31	35	38
	F35172			1.0	2.65	32.2	0.172	3.7	4.2	5.2	6.0	7.3	8.5	9.5	11.6	29	35	39
	F35187			1.0	2.65	32.2	0.187	4.3	4.9	6.1	7.0	8.6	9.9	11.1	13.6	27	35	40
	F35203			1.0	2.65	32.2	0.203	4.9	5.7	6.9	8.0	9.8	11.3	12.6	15.5	26	35	40
	F35219			1.0	2.65	32.2	0.219	5.5	6.4	7.8	9.0	11.0	12.7	14.2	17.4	11	15	18
	F35234			1.0	2.65	32.2	0.234	6.1	7.1	8.7	10.0	12.2	14.2	15.8	19.4	11	15	18
40	F40125		1.0		2.50	32.2	0.125	1.8	2.1	2.6	3	3.7	4.2	4.7	5.8	24	40	43
	F40141		1.0		2.50	32.2	0.141	2.5	2.8	3.5	4.0	4.9	5.7	6.3	7.7	24	40	43
	F40156		1.0		2.50	32.2	0.156	3.1	3.5	4.3	5.0	6.1	7.1	8.0	9.7	24	40	43
	F40297			1.0	2.65	32.2	0.297	9.8	11.3	13.9	16.0	19.6	23.0	25.0	31.0	24	40	43
50	F50078	0.625			2.50	50.5	0.078	0.6	0.71	0.87	1.0	1.2	1.4	1.6	1.9	34	50	50
	F50109	0.625			2.50	50.5	0.109	1.5	1.8	2.2	2.5	3.1	3.5	3.9	4.8	42	50	50
	F50109		1.0		2.50	32.2	0.109	1.5	1.8	2.2	2.5	3.1	3.5	3.9	4.8	42	50	50
	F50141	0.625			2.50	50.5	0.141	2.5	2.8	3.5	4.0	4.9	5.7	6.3	7.7	39	50	50
	F50141		1.0		2.50	32.2	0.141	2.5	2.8	3.5	4.0	4.9	5.7	6.3	7.7	39	50	50
	F50187		1.0		2.50	32.2	0.187	3.7	4.2	5.2	6.0	7.3	8.5	9.5	11.6	42	50	50
	F50234		1.0		2.50	32.2	0.234	6.1	7.1	8.7	10.0	12.2	14.2	15.8	19.4	42	50	50
	F50266		1.0		2.50	32.2	0.266	7.6	8.8	10.8	12.5	15.3	17.7	19.7	24.0	38	50	50
	F50297		1.0		2.50	32.2	0.297	9.8	11.3	13.9	16.0	19.6	23.0	25.0	31.0	44	50	50
	F50328		1.0		2.50	32.2	0.328	12.2	14.2	17.0	20.0	24.0	28.0	32.0	39.0	46	50	50

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series FL Flat Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Code	Available Thread Sizes			Length (A)	(B) Deflection Angle (Deg)	Equivalent Orifice (mm)	Flow (LPM)								Fan Angle at kPa (Bar)*		
		1/4" NPT	3/8" NPT	1/2" NPT				100	150	200	300	400	500	700	1000	100	275	700
		Hex Size C (inches)						1.00	1.50	2.00	3.00	4.00	5.00	7.00	10.00	1.00	2.75	7.00
15	F15078	0.625			1.88	22	1.98	2.80	3.24	3.95	4.5	5.0	6.1	7.1	10.6	10	15	23
	F15187			1.0	2.65	32.2	4.75	19.3	22.7	27.6	32.0	35.7	42.34	50.6	73.2	10	15	19
	F15203			1.0	2.65	32.2	5.16	22.5	25.7	31.6	36.5	40.7	48.1	57.7	85.2	11	15	18
	F15219			1.0	2.65	32.2	5.56	25.3	29.0	35.5	40.9	45.8	54.2	64.8	95.6	11	15	18
	F15234			1.0	2.65	32.2	5.94	28.0	32.4	39.5	45.4	51.2	60.3	72.2	106.1	11	15	18
25	F25141	0.75			2.56	25	3.58	11.1	13.0	15.8	18.2	20.5	24.0	28.7	41.8	15	25	34
35	F35078	0.625			1.44	36	1.98	2.80	3.2	3.9	4.5	5.0	6.1	7.1	10.6	18	35	39
	F35109	0.75			1.66	30	2.77	5.5	6.3	7.9	8.9	10.1	12.2	14.5	20.9	24	35	40
	F35125		1.0		2.50	32.2	3.18	8.3	9.8	11.8	13.77	15.1	17.9	21.6	31.4	26	35	41
	F35141		1.0		2.50	32.2	3.58	11.1	13.0	15.8	18.2	20.5	24.0	28.7	41.8	28	35	38
	F35156		1.0		2.50	32.2	3.96	13.8	16.0	19.7	22.7	25.6	30.5	36.1	52.3	31	35	38
	F35172			1.0	2.65	32.2	4.37	16.6	19.4	23.7	27.2	30.6	36.2	43.2	62.8	29	35	39
	F35187			1.0	2.65	32.2	4.75	19.3	22.7	27.6	32.0	35.7	42.3	50.6	73.2	27	35	40
	F35203			1.0	2.65	32.2	5.16	22.5	25.7	31.6	36.5	40.7	48.1	57.7	85.2	26	35	40
	F35219			1.0	2.65	32.2	5.56	25.3	29.0	35.5	40.9	45.8	54.2	64.8	95.6	11	15	18
	F35234			1.0	2.65	32.2	5.94	28.0	32.4	39.5	45.4	51.2	60.3	72.2	106.1	11	15	18
40	F40125		1.0		2.50	32.2	3.18	8.3	9.8	11.8	13.77	15.1	17.9	21.6	31.4	24	40	43
	F40141		1.0		2.50	32.2	3.58	11.1	13.0	15.8	18.2	20.5	24.0	28.7	41.8	24	40	43
	F40156		1.0		2.50	32.2	3.96	13.8	16.0	19.7	22.7	25.6	30.5	36.1	52.3	24	40	43
	F40297			1.0	2.65	32.2	7.54	44.6	51.7	63.2	73.0	82.9	95.4	115.4	168.9	24	40	43
50	F50078	0.625			2.50	50.5	1.98	2.8	3.24	3.95	4.5	5.0	6.1	7.1	10.6	34	50	50
	F50109	0.625			2.50	50.5	2.77	7.1	8.2	9.9	11.5	12.6	14.9	17.9	26.9	42	50	50
	F50109		1.0		2.50	32.2	2.77	7.1	8.2	9.9	11.5	12.6	14.9	17.9	26.9	42	50	50
	F50141	0.625			2.50	50.5	3.58	11.1	13.0	15.8	18.2	20.5	24.0	28.7	41.8	39	50	50
	F50141		1.0		2.50	32.2	3.58	11.1	13.0	15.8	18.2	20.5	24.0	28.7	41.8	39	50	50
	F50187		1.0		2.50	32.2	4.75	16.6	19.4	23.7	27.2	30.6	36.2	43.2	62.8	42	50	50
	F50234		1.0		2.50	32.2	5.94	28.0	32.4	39.5	45.4	51.2	60.3	72.2	106.1	42	50	50
	F50266		1.0		2.50	32.2	6.76	34.7	40.2	49.4	57.0	63.8	75.1	89.3	131.5	38	50	50
	F50297		1.0		2.50	32.2	7.54	44.6	51.7	63.2	73.0	82.9	95.4	115.4	168.9	44	50	50
	F50328		1.0		2.50	32.2	8.33	56.1	63.3	79.0	89.3	100.9	122.1	145.2	212.2	46	50	50

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Brush Shower Fan/Jet Nozzles



Products

- ▶ Series BF Brush Shower Fan Nozzle 44
- ▶ Series BT Brush Shower Jet Nozzle 49
- ▶ Series BZ Brush Shower Fan Nozzle 51

Brush Shower Fan Nozzles



Series BF Brush Shower Fan Nozzle

Nozzle Characteristics

The BF series brush shower fan nozzle is designed to deliver liquid in a range of fan patterns from 15° – 70°. It's a self aligning disc that can be installed in all Kadant brush showers.

Construction

All BF series nozzles are constructed of 316SS. They are available for application pressures of less than 40 psi. Nozzle discs are available with ArresTech plating as an option.

Components



Retaining Nut, Nozzle – 1.375" – 12
C-25901



Disc, Nozzle Dome

*Blank nozzle is C14239 to disable flow.



Gasket

C14217

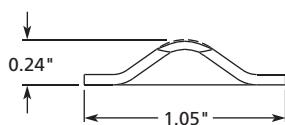
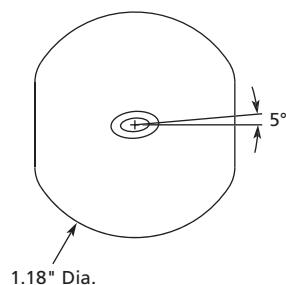


Base, Nozzle Casting – 1.375" – 12 *

C25902-GP1 for use with Sch 10 pipe

C25902-GP2 for use with Sch 40 pipe

*Welded to shower — not normally replaced.



Brush Shower Fan Nozzle Ordering Information				
Nozzle Series	BF	S	L	015040
Construction Material				Fan/Orifice Number
Application Pressure				

Construction Material	Code
ArresTech Plated 316SS	A
316SS	S

Application Pressure	Code
40 psig and less	L
41 to 1000 psig	H

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series BF Brush Shower Fan Nozzle

Fan Angle (degree) at 30 psi (*2)	Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)											Low-Pressure (*2) Spray Angle at			High-Pressure (*2) Spray Angle at		
			20	40	60	80	100	200	400	600	800	1000	20	30	40	50	80	100	
			0.16	0.23	0.28	0.32	0.36	0.51	0.72	0.88	1.01	1.13	13	15	16	13	15	16	
15	015040	0.040	0.16	0.23	0.28	0.32	0.36	0.51	0.72	0.88	1.01	1.13	13	15	16	13	15	16	
	015055	0.055	0.29	0.40	0.49	0.57	0.64	0.90	1.27	1.56	1.80	2.02	13	15	16	13	15	16	
	015070	0.070	0.49	0.70	0.85	0.99	1.10	1.56	2.21	2.70	3.12	3.49	13	15	16	13	15	16	
	015093	0.093	0.85	1.20	1.47	1.70	1.90	2.68	3.79	4.65	5.37	6.00	13	15	16	13	15	17	
	015109	0.109	1.01	1.43	1.73	2.00	2.24	3.16	4.47	5.48	6.32	7.07	14	15	16	13	15	17	
	015125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97	14	15	17	13	15	18	
30	030040	0.040	0.17	0.23	0.29	0.33	0.37	0.52	0.74	0.90	1.04	1.17	25	30	32	25	30	32	
	030055	0.055	0.28	0.39	0.48	0.55	0.61	0.87	1.23	1.51	1.74	1.94	25	30	32	25	30	32	
	030063	0.063	0.40	0.57	0.70	0.80	0.90	1.27	1.80	2.20	2.55	2.85	25	30	32	25	30	32	
	030070	0.070	0.49	0.69	0.85	0.98	1.10	1.55	2.19	2.68	3.10	3.46	25	30	32	25	30	32	
	030079	0.079	0.69	0.98	1.20	1.38	1.54	2.18	3.09	3.78	4.36	4.88	25	30	32	25	30	32	
	030094	0.094	0.85	1.20	1.47	1.70	1.90	2.69	3.80	4.66	5.38	6.01	25	30	32	25	30	32	
	030110	0.110	1.25	1.77	2.17	2.50	2.80	3.95	5.59	6.85	7.91	8.84	25	30	32	25	30	32	
	030125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97	25	30	32	25	30	32	
	030144	0.144	2.09	2.96	3.62	4.18	4.67	6.61	9.35	11.45	13.22	14.78	25	30	32	25	30	32	
	030156	0.156	2.31	3.27	4.00	4.62	5.17	7.30	10.33	12.65	14.61	16.33	25	30	32	25	30	32	
	030171	0.171	2.53	3.57	4.37	5.05	5.65	7.98	11.29	13.83	15.97	17.85	25	30	33	25	30	33	
	030188	0.188	3.35	4.74	5.80	6.70	7.49	10.59	14.98	18.35	21.19	23.69	26	30	33	26	30	33	
	030203	0.203	4.14	5.85	7.17	8.28	9.26	13.09	18.51	22.68	26.18	29.27	26	30	33	26	30	33	
	030218	0.218	5.05	7.14	8.75	10.10	11.29	15.97	22.58	27.66	31.94	35.71	26	30	33	26	30	33	
	030250	0.250	6.78	9.58	11.74	13.55	15.15	21.43	30.31	37.12	42.86	47.92	26	30	33	26	30	33	
	030281	0.281	7.78	11.00	13.47	15.56	17.39	24.60	34.79	42.61	49.20	55.01	26	30	33	26	30	33	
	030296	0.296	8.65	12.23	14.98	17.30	19.34	27.35	38.68	47.38	54.71	61.16	26	30	33	26	30	33	
	030315	0.315	7.64	10.80	13.23	15.27	17.08	24.15	34.15	41.83	48.30	54.00	26	30	33	26	30	33	
40	040111	0.111	1.21	1.70	2.09	2.41	2.69	3.81	5.39	6.60	7.62	8.52	35	40	48	35	40	48	
	040125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97	35	40	48	35	40	48	
45	045033	0.033	0.14	0.20	0.24	0.28	0.31	0.44	0.63	0.77	0.89	0.99	39	45	47	39	45	47	
	045036	0.036	0.17	0.23	0.29	0.33	0.37	0.52	0.74	0.90	1.04	1.17	39	45	47	39	45	47	
	045040	0.040	0.20	0.28	0.35	0.40	0.45	0.63	0.89	1.10	1.26	1.41	39	45	47	39	45	47	
	045050	0.050	0.28	0.40	0.50	0.58	0.65	0.92	1.30	1.59	1.83	2.05	39	45	47	39	45	47	
	045055	0.055	0.38	0.54	0.66	0.76	0.85	1.20	1.70	2.08	2.40	2.69	39	45	47	39	45	47	
	045070	0.070	0.53	0.74	0.91	1.05	1.17	1.66	2.35	2.88	3.32	3.71	39	45	47	39	45	47	

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Series BF Brush Shower Fan Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 30 psi (*2)	Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)										Low-Pressure (*2) Spray Angle at			High-Pressure (*2) Spray Angle at		
			20	40	60	80	100	200	400	600	800	1000	20	30	40	50	80	100
45	045094	0.094	0.86	1.22	1.49	1.72	1.92	2.72	3.85	4.71	5.44	6.08	39	45	47	39	45	47
	045110	0.110	1.23	1.73	2.12	2.45	2.74	3.87	5.48	6.71	7.75	8.66	39	45	47	39	45	47
	045125	0.125	1.62	2.29	2.81	3.24	3.62	5.12	7.24	8.87	10.25	11.46	40	45	48	40	45	48
	045144	0.144	2.13	3.01	3.68	4.25	4.75	6.72	9.50	11.64	13.44	15.03	40	45	48	40	45	48
	045156	0.156	2.25	3.18	3.90	4.50	5.03	7.12	10.06	12.32	14.23	15.91	40	45	48	40	45	48
	045171	0.171	2.84	4.02	4.92	5.68	6.35	8.98	12.70	15.56	17.96	20.08	40	45	48	40	45	48
	045188	0.188	3.47	4.91	6.01	6.94	7.76	10.97	15.52	19.01	21.95	24.54	40	45	48	40	45	48
	045250	0.250	6.22	8.80	10.77	12.44	13.91	19.67	27.82	34.07	39.34	43.98	41	45	48	41	45	48
	045288	0.288	8.17	11.55	14.14	16.33	18.26	25.82	36.51	44.72	51.64	57.74	41	45	48	41	45	48
57	057250	0.250	6.80	9.62	11.78	13.60	15.21	21.50	30.41	37.25	43.01	48.08	53	57	60	53	57	60
60	060028	0.028	0.07	0.10	0.12	0.14	0.16	0.22	0.32	0.39	0.45	0.50	50	60	62	50	60	62
	060031	0.031	0.11	0.15	0.18	0.21	0.24	0.34	0.47	0.58	0.67	0.75	50	60	62	50	60	62
	060040	0.040	0.17	0.24	0.29	0.34	0.38	0.53	0.75	0.92	1.07	1.19	50	60	62	50	60	62
	060050	0.050	0.25	0.35	0.43	0.49	0.55	0.78	1.11	1.35	1.56	1.75	50	60	62	50	60	62
	060055	0.055	0.33	0.46	0.57	0.66	0.73	1.04	1.47	1.80	2.07	2.32	50	60	62	50	60	62
	060060	0.060	0.39	0.55	0.68	0.78	0.87	1.23	1.74	2.14	2.47	2.76	50	60	62	50	60	62
	060062	0.062	0.50	0.71	0.87	1.00	1.12	1.58	2.24	2.74	3.17	3.54	50	60	62	52	60	62
	060070	0.070	0.65	0.92	1.13	1.30	1.46	2.06	2.92	3.57	4.13	4.61	50	60	62	54	60	62
	060079	0.079	0.71	1.00	1.22	1.41	1.58	2.23	3.15	3.86	4.46	4.99	50	60	62	54	60	62
	060086	0.086	0.77	1.09	1.33	1.54	1.72	2.43	3.44	4.22	4.87	5.44	50	60	62	54	60	63
	060094	0.094	0.90	1.27	1.55	1.79	2.00	2.83	4.00	4.90	5.66	6.33	50	60	63	56	60	63
	060109	0.109	1.07	1.51	1.84	2.13	2.38	3.37	4.76	5.83	6.74	7.53	51	60	63	56	60	63
	060118	0.118	1.40	1.98	2.42	2.80	3.13	4.43	6.26	7.67	8.85	9.90	52	60	63	56	60	63
	060125	0.125	1.53	2.16	2.64	3.05	3.41	4.82	6.82	8.35	9.64	10.78	53	60	63	56	60	63
	060141	0.141	1.88	2.66	3.26	3.76	4.20	5.95	8.41	10.30	11.89	13.29	55	60	63	56	60	64
	060156	0.156	2.23	3.15	3.85	4.45	4.98	7.04	9.95	12.19	14.07	15.73	56	60	63	58	60	64
	060188	0.188	3.39	4.80	5.88	6.79	7.59	10.73	15.18	18.59	21.47	24.00	57	60	63	58	60	65
70	070033	0.033	0.18	0.25	0.31	0.35	0.40	0.56	0.79	0.97	1.12	1.25	60	—	—	60	—	—
	070070	0.070	0.44	0.62	0.75	0.87	0.97	1.38	1.95	2.38	2.75	3.08	60	—	—	60	—	—
75	075040	0.040	0.17	0.24	0.30	0.35	0.39	0.55	0.77	0.94	1.09	1.22	64	(*3)	(*3)	64	65	65
	075055	0.055	0.27	0.38	0.46	0.53	0.60	0.84	1.19	1.46	1.69	1.88	64			64		
	075075	0.075	0.39	0.56	0.68	0.79	0.88	1.25	1.76	2.16	2.50	2.79	65			65		
	075078	0.078	0.57	0.80	0.98	1.13	1.26	1.79	2.53	3.09	3.57	4.00	65			65		

*1 Reference numbers only. Angle may change depending on the operational conditions such as water temperature, chemicals, viscosity, or build-up contaminants.

*2 High-pressure nozzles are tested at 80 psi and low-pressure nozzles are tested at 30 psi for the nominal angle.

*3 Maximum angle allowed on BF nozzle assembly is 65 degrees. Nominal angles higher than 65 degrees are meant to operate at lower pressures and reach maximum angle.



Series BF Brush Shower Fan Nozzle

Fan Angle (degree) at 207 kpa (2.07 Bar) (*2)	Nozzle Number	Nozzle Orifice (mm)	Pressure kPa (Bars)												Low-Pressure (< 275 kPa) (*2) Spray Angle at			
			100	200	300	400	500	750	1000	2000	4000	7000	138	275	552	345	552	689
			1.00	2.00	3.00	4.00	5.00	7.50	10.00	20.00	40.00	70.00	1.38	2.75	5.52	3.45	5.52	6.89
15	015040	1.02	0.52	0.73	0.89	1.03	1.15	1.41	1.63	2.31	3.26	4.31	—	—	—	—	—	—
	015055	1.40	0.92	1.30	1.59	1.84	2.05	2.52	2.90	4.11	5.81	7.69	13	15	16	13	15	16
	015070	1.78	1.59	2.25	2.75	3.18	3.56	4.35	5.03	7.11	10.06	13.30	13	15	16	13	15	16
	015093	2.36	2.74	3.87	4.74	5.47	6.12	7.49	8.65	12.23	17.30	22.88	13	15	16	13	15	16
	015109	2.77	3.26	4.61	5.58	6.45	7.21	8.83	10.19	14.41	20.38	26.96	13	15	16	13	15	17
	015125	3.18	5.02	7.09	8.69	10.03	11.21	15.86	22.43	27.47	31.72	35.46	14	15	16	13	15	17
30	030040	1.02	0.53	0.75	0.92	1.06	1.19	1.46	1.68	2.38	3.36	4.45	14	15	17	13	15	18
	030055	1.40	0.89	1.25	1.54	1.77	1.98	2.43	2.80	3.96	5.61	7.42	25	30	32	25	30	32
	030063	1.60	1.30	1.83	2.25	2.59	2.90	3.55	4.10	5.80	8.21	10.85	25	30	32	25	30	32
	030070	1.78	1.58	2.23	2.74	3.16	3.53	4.33	4.99	7.06	9.99	13.21	25	30	32	25	30	32
	030079	2.01	2.61	3.69	4.52	5.22	5.84	8.26	11.68	14.30	16.52	18.47	25	30	32	25	30	32
	030094	2.39	2.74	3.87	4.75	5.48	6.13	7.50	8.66	12.25	17.33	22.92	25	30	32	25	30	32
	030110	2.79	4.03	5.70	6.98	8.06	9.01	11.03	12.74	18.02	25.48	33.71	25	30	32	25	30	32
	030125	3.18	4.54	6.43	7.87	9.09	10.16	12.45	14.37	20.32	28.74	38.02	25	30	32	25	30	32
	030144	3.66	6.74	9.53	11.67	13.47	15.06	18.45	21.30	30.12	42.60	56.35	25	30	32	25	30	32
	030156	3.96	7.45	10.53	12.90	14.89	16.65	20.39	23.55	33.30	47.09	62.30	25	30	32	25	30	32
	030171	4.34	8.14	11.51	14.10	16.28	18.20	22.29	25.74	36.40	51.47	68.09	25	30	32	25	30	32
	030188	4.78	10.80	15.27	18.70	21.60	24.14	29.57	34.15	48.29	68.29	90.34	25	30	33	25	30	33
	030203	5.16	13.34	18.87	23.11	26.68	29.83	36.54	42.19	59.67	84.38	111.63	26	30	33	26	30	33
	030218	5.54	16.28	23.02	28.19	32.55	36.40	44.58	51.47	72.79	102.95	136.19	26	30	33	26	30	33
	030250	6.35	21.84	30.89	37.83	43.69	48.84	59.82	69.08	97.69	138.15	182.76	26	30	33	26	30	33
	030281	7.14	25.07	35.46	43.43	50.15	56.07	68.67	79.29	112.14	158.58	209.79	26	30	33	26	30	33
	030296	7.52	32.74	46.30	56.71	65.48	73.21	103.53	146.42	179.33	207.07	231.51	26	30	33	26	30	33
40	040111	2.82	3.88	5.49	6.73	7.77	8.68	10.64	12.28	17.37	24.56	32.50	26	30	33	26	30	33
	040315	8.00	28.94	40.92	50.12	57.87	64.70	91.50	129.41	158.49	183.01	204.61	26	30	33	26	30	33
45	045033	0.84	0.45	0.63	0.78	0.90	1.01	1.24	1.43	2.02	2.85	3.77	35	40	48	35	40	48
	045036	0.91	0.62	0.88	1.08	1.25	1.40	1.97	2.79	3.42	3.95	4.42	35	40	48	35	40	48
	045040	1.02	0.76	1.07	1.31	1.51	1.69	2.39	3.39	4.15	4.79	5.35	39	45	47	39	45	47
	045050	1.27	0.92	1.30	1.60	1.87	2.09	2.56	2.96	4.18	5.91	7.82	39	45	47	39	45	47
	045055	1.40	1.22	1.73	2.12	2.45	2.74	3.35	3.87	5.48	7.75	10.25	39	45	47	39	45	47

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Series BF Brush Shower Fan Nozzle



Flow Rate (Liters per Minute)

Fan Angle (degree) at 207 kpa (2.07 Bar) (*2)	Nozzle Number	Nozzle Orifice (mm)	Pressure kPa (Bars)										Low-Pressure (< 275 kPa) (*2) Spray Angle at			High-Pressure (> 275 kPa) (*2) Spray Angle at		
			100	200	300	400	500	750	1000	2000	4000	7000	138	275	552	345	552	689
			1.00	2.00	3.00	4.00	5.00	7.50	10.00	20.00	40.00	70.00	1.38	2.75	5.52	3.45	5.52	6.89
45	045070	1.78	1.69	2.39	2.93	3.38	3.78	4.63	5.35	7.57	10.70	14.16	39	45	47	39	45	47
	045094	2.39	2.77	3.92	4.80	5.54	6.20	7.59	8.77	12.40	17.53	23.19	39	45	47	39	45	47
	045110	2.79	3.95	5.58	6.84	7.90	8.83	10.81	12.48	17.66	24.97	33.03	39	45	47	39	45	47
	045125	3.18	5.22	7.38	9.04	10.44	11.68	14.30	16.51	23.35	33.02	43.69	39	45	47	39	45	47
	045144	3.66	8.04	11.37	13.93	16.09	17.98	25.43	35.97	44.05	50.87	56.87	40	45	48	40	45	48
	045156	3.96	7.25	10.26	12.56	14.50	16.22	19.86	22.93	32.43	45.87	60.68	40	45	48	40	45	48
	045171	4.37	9.15	12.94	15.85	18.31	20.47	25.07	28.94	40.93	57.89	76.58	40	45	48	40	45	48
	045188	4.78	13.13	18.57	22.75	26.27	29.37	41.53	58.74	71.94	83.07	92.87	40	45	48	40	45	48
	045250	6.35	20.05	28.35	34.72	40.09	44.82	54.90	63.39	89.65	126.78	167.72	40	45	48	40	45	48
	57	057250	6.35	21.92	30.99	37.96	43.83	49.00	60.02	69.30	98.01	138.60	183.36	41	45	48	41	45
60	060028	0.71	0.23	0.32	0.39	0.46	0.51	0.62	0.72	1.02	1.44	1.91	53	57	60	53	57	60
	060031	0.79	0.34	0.48	0.59	0.68	0.77	0.94	1.08	1.53	2.16	2.86	50	60	62	50	60	62
	060040	1.02	0.54	0.77	0.94	1.09	1.21	1.49	1.72	2.43	3.43	4.54	50	60	62	50	60	62
	060050	1.270	0.80	1.13	1.38	1.59	1.78	2.18	2.52	3.56	5.04	6.67	50	60	62	50	60	62
	060055	1.40	1.27	1.80	2.21	2.55	2.85	3.49	4.03	5.69	8.05	10.65	50	60	62	50	60	62
	060060	1.52	1.48	2.08	2.57	3.02	3.29	4.66	6.59	8.10	9.35	10.45	50	60	62	50	60	62
	060062	1.58	1.62	2.29	2.83	3.32	3.62	5.12	7.24	8.91	10.28	11.49	50	60	62	50	60	62
	060070	1.78	2.10	2.97	3.64	4.21	4.70	5.76	6.65	9.40	13.30	17.59	50	60	62	52	60	62
	060079	2.01	2.67	3.77	4.62	5.34	5.97	8.44	11.93	14.62	16.88	18.87	50	60	62	54	60	62
	060086	2.18	2.48	3.51	4.30	4.96	5.55	6.80	7.85	11.10	15.69	20.76	50	60	62	54	60	62
	060094	2.39	2.88	4.08	5.00	5.77	6.45	7.90	9.12	12.90	18.25	24.14	50	60	62	54	60	63
	060109	2.77	3.43	4.85	5.94	6.86	7.67	9.40	10.85	15.35	21.71	28.72	50	60	63	56	60	63
	060118	3.00	4.51	6.38	7.82	9.03	10.09	12.36	14.27	20.18	28.54	37.76	51	60	63	56	60	63
	060125	3.18	4.92	6.95	8.51	9.83	10.99	13.46	15.54	21.98	31.09	41.13	52	60	63	56	60	63
	060156	3.96	7.17	10.14	12.42	14.34	16.04	19.64	22.68	32.07	45.36	60.00	53	60	63	56	60	63
	060188	4.78	10.94	15.47	18.95	21.88	24.46	29.96	34.60	48.93	69.19	91.53	55	60	63	56	60	64
	060250	6.35	25.74	36.40	44.58	51.48	57.55	81.39	115.10	140.97	162.78	182.00	56	60	63	58	60	64
70	070033	0.84	0.67	0.95	1.16	1.34	1.50	2.12	3.00	3.67	4.24	4.74	57	60	63	58	60	65
	070141	3.58	7.12	10.06	12.32	14.23	15.91	22.50	31.82	38.97	45.00	50.32	60			60		
75	075040	1.02	0.65	0.92	1.13	1.31	1.46	2.06	2.92	3.58	4.13	4.62	60					
	075055	1.40	1.01	1.43	1.75	2.02	2.26	3.19	4.51	5.52	6.38	7.13	64					
	075070	1.78	1.65	2.33	2.85	3.29	3.68	5.21	7.36	9.02	10.41	11.64	64					
	075075	1.91	1.49	2.11	2.59	2.99	3.34	4.72	6.68	8.18	9.44	10.56	65					
	075078	1.98	2.14	3.02	3.70	4.28	4.78	6.76	9.56	11.71	13.53	15.12	65					

*1 Reference numbers only. Angle may change depending on the operational conditions such as water temperature, chemicals, viscosity, or build-up contaminants.

*2 High-pressure nozzles are tested at 552 (5.52 Bar) and low-pressure nozzles are tested at 207 kPa (2.07 Bar) for the nominal angle.

*3 Maximum angle allowed on BF nozzle assembly is 65 degrees. Nominal angles higher than 65 degrees are meant to operate at lower pressures and reach maximum angle.



Brush Shower Jet Nozzles

Series BT Brush Shower Jet Nozzle

Nozzle Characteristics

The BT series brush shower jet nozzle is designed to deliver liquid in a solid stream. The disc can be installed in all Kadant brush showers. Jet nozzles are available with Duracerm ceramic, ruby or sapphire insert materials. Ruby and sapphire inserts have excellent erosion resistance to liquid flow, maximizing nozzle life. Duracerm ceramic is one of the toughest shower nozzle materials available and will provide long life in brush showers. All 316SS nozzles are available with ArresTech plating as an option, which has been shown to decrease wear imparted on a nozzle due to brushing.

Construction

All BT series nozzles are constructed of 316SS. They are available for design pressure of 1000 psig. Nozzle discs are available with ArresTech plating as an option.

Components



Retaining Nut, Nozzle – 1.375" – 12
C-25901



Jet Nozzle with Ruby Insert



Disc, Nozzle Dome, Stamm and Spraying Systems



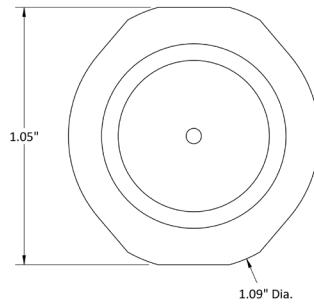
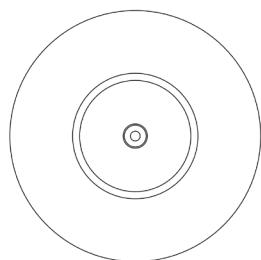
Disc, Nozzle Dome, Kadant



Gasket
C14217 = BTK (Kadant)
A26460 = BTC (Stamm & Spraying Systems)
NONE = BTR, BTB, BTP



Base, Nozzle Casting – 1.375" – 12*
C25902-GP1 for use with Schedule 10 pipe
C25902-GP2 for use with Schedule 40 pipe
**Welded to shower - not normally replaced.
Not suitable for BZ or BTC bases.*



Series BT Brush Shower Jet Nozzle



Flow Rate (Gallons per Minute)

Material			Orifice Number	Nozzle Orifice (inch)	Pressure (PSI)									
Duracerm	Sapphire/Ruby	316 Stainless Steel			20	40	60	80	100	200	400	600	800	1000
	x		005	0.005	0.002	0.003	0.004	0.004	0.005	0.006	0.009	0.011	0.013	0.014
	x		010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
	x		018	0.018	0.026	0.037	0.046	0.053	0.059	0.083	0.118	0.144	0.167	0.186
			023	0.023	0.043	0.061	0.075	0.086	0.096	0.136	0.192	0.236	0.272	0.304
	x	x	028	0.028	0.065	0.092	0.113	0.130	0.145	0.206	0.291	0.356	0.411	0.460
	x	x	033	0.033	0.110	0.156	0.191	0.220	0.246	0.348	0.492	0.602	0.696	0.778
x	x	x	040	0.040	0.160	0.226	0.277	0.320	0.358	0.506	0.716	0.876	1.01	1.13
		x	047	0.047	0.180	0.254	0.311	0.359	0.402	0.568	0.804	0.984	1.14	1.27
	x	x	055	0.055	0.295	0.417	0.511	0.590	0.660	0.933	1.32	1.62	1.87	2.09
		x	070	0.070	0.400	0.566	0.693	0.800	0.894	1.26	1.79	2.19	2.53	2.83
		x	078	0.078	0.559	0.790	0.968	1.12	1.25	1.77	2.50	3.06	3.53	3.95
		x	094	0.094	0.815	1.15	1.41	1.63	1.82	2.58	3.64	4.46	5.15	5.76
		x	125	0.125	1.33	1.87	2.29	2.65	2.96	4.19	5.93	7.26	8.38	9.37

Flow Rate (Liters per Minute)

Material			Orifice Number	Nozzle Orifice (mm)	Pressure kPa (Bars)									
Duracerm	Sapphire/Ruby	316 Stainless Steel			100	200	300	400	500	750	1000	2000	4000	7000
			1.00	2.00	3.00	4.00	5.00	7.50	10.00	20.00	40.00	70.00		
	x		005	0.13	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.05
	x		010	0.25	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.12	0.17	0.22
	x		018	0.46	0.08	0.12	0.15	0.17	0.19	0.23	0.27	0.38	0.54	0.71
			023	0.58	0.14	0.20	0.24	0.28	0.31	0.38	0.44	0.62	0.88	1.16
	x	x	028	0.71	0.21	0.30	0.36	0.42	0.47	0.57	0.66	0.94	1.32	1.75
	x	x	033	0.84	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.59	2.24	2.97
x	x	x	040	1.02	0.52	0.73	0.89	1.03	1.15	1.41	1.63	2.31	3.26	4.31
		x	047	1.19	0.58	0.82	1.00	1.16	.13	.16	1.83	2.59	3.66	4.85
	x	x	055	1.40	0.95	1.34	1.65	1.90	2.13	2.60	3.01	4.25	6.01	7.96
		x	070	1.78	1.29	1.82	2.23	2.58	2.88	3.53	4.08	5.77	8.15	10.79
		x	078	1.98	1.80	2.55	3.12	3.60	4.03	4.93	5.69	8.05	11.39	15.06
		x	094	2.39	2.63	3.72	4.55	5.25	5.87	7.19	8.31	11.75	16.61	21.98
		x	125	3.18	4.27	6.04	7.40	8.54	9.55	11.70	13.51	19.10	27.01	35.73

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Brush Shower Fan Nozzles

Series BZ Brush Shower Fan Nozzle

Nozzle Characteristics

The BZ brush shower fan nozzle is designed to deliver liquid in a fan pattern with up to a 70° angle. It's a self aligning disc that can be installed in many commercially available shower bars.*

* Replacement for Spraying Systems and Stamm brush shower nozzles.

Construction

All BZ series nozzles are constructed of 316SS. They are available for application pressures greater than 40 psi.

Components



Retaining Nut, Nozzle – C-25901
B37023 – ArresTech Plated 316SS

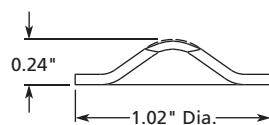
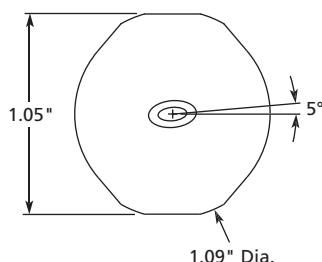


Disc, Nozzle Dome



Gasket Shower
A26460 Gylon

Base, Nozzle Casting – 1.375" – 12*



Brush Shower Fan Nozzle Ordering Information				
Nozzle Series	BZ	S	L	015040
Construction Material		Application Pressure		Fan/Orifice Number

Construction Material	Code
316SS	S
40 psig and less	L
41 to 1000 psig	H

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Brush Shower Fan/Jet Nozzles Tab](#)

Series BZ Brush Shower Fan Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 80 psi	Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)									
			20	40	60	80	100	200	400	600	800	1000
15	015040	0.040	0.17	0.25	0.30	0.35	0.39	0.55	0.78	0.96	1.11	1.24
	015055	0.055	0.29	0.40	0.49	0.57	0.64	0.90	1.27	1.56	1.80	2.02
	015070	0.070	0.49	0.70	0.85	0.99	1.10	1.56	2.21	2.70	3.12	3.49
	015093	0.093	0.85	1.20	1.47	1.70	1.90	2.68	3.79	4.65	5.37	6.00
	015109	0.109	1.01	1.43	1.73	2.00	2.24	3.16	4.47	5.48	6.32	7.07
	015125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97
30	030040	0.040	0.17	0.23	0.29	0.33	0.37	0.52	0.74	0.90	1.04	1.17
	030055	0.055	0.28	0.39	0.48	0.55	0.61	0.87	1.23	1.51	1.74	1.94
	030063	0.063	0.40	0.57	0.70	0.80	0.90	1.27	1.80	2.20	2.55	2.85
	030070	0.070	0.49	0.69	0.85	0.98	1.10	1.55	2.19	2.68	3.10	3.46
	030094	0.094	0.85	1.20	1.47	1.70	1.90	2.69	3.80	4.66	5.38	6.01
	030110	0.110	1.25	1.77	2.17	2.50	2.80	3.95	5.59	6.85	7.91	8.84
	030125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97
	030144	0.144	2.09	2.96	3.62	4.18	4.67	6.61	9.35	11.45	13.22	14.78
	030156	0.156	2.31	3.27	4.00	4.62	5.17	7.30	10.33	12.65	14.61	16.33
	030171	0.171	2.53	3.57	4.37	5.05	5.65	7.98	11.29	13.83	15.97	17.85
	030188	0.188	3.35	4.74	5.80	6.70	7.49	10.59	14.98	18.35	21.19	23.69
	030203	0.203	4.14	5.85	7.17	8.28	9.26	13.09	18.51	22.68	26.18	29.27
	030218	0.218	5.05	7.14	8.75	10.10	11.29	15.97	22.58	27.66	31.94	35.71
	030250	0.250	6.78	9.58	11.74	13.55	15.15	21.43	30.31	37.12	42.86	47.92
	030281	0.281	7.78	11.00	13.47	15.56	17.39	24.60	34.79	42.61	49.20	55.01
	030296	0.296	8.65	12.23	14.98	17.30	19.34	27.35	38.68	47.38	54.71	61.16
40	040111	0.111	1.21	1.70	2.09	2.41	2.69	3.81	5.39	6.60	7.62	8.52
	040125	0.125	1.41	1.99	2.44	2.82	3.15	4.46	6.31	7.72	8.92	9.97
45	045033	0.033	0.14	0.20	0.24	0.28	0.31	0.44	0.63	0.77	0.89	0.99
	045036	0.036	0.16	0.22	0.27	0.32	0.35	0.50	0.70	0.86	1.00	1.11
	045040	0.040	0.17	0.25	0.30	0.35	0.39	0.55	0.78	0.96	1.11	1.24
	045050	0.050	0.28	0.40	0.50	0.58	0.65	0.92	1.30	1.59	1.83	2.05
	045055	0.055	0.38	0.54	0.66	0.76	0.85	1.20	1.70	2.08	2.40	2.69
	045070	0.070	0.53	0.74	0.91	1.05	1.17	1.66	2.35	2.88	3.32	3.71
	045094	0.094	0.86	1.22	1.49	1.72	1.92	2.72	3.85	4.71	5.44	6.08
	045110	0.110	1.23	1.73	2.12	2.45	2.74	3.87	5.48	6.71	7.75	8.66
	045125	0.125	1.62	2.29	2.81	3.24	3.62	5.12	7.24	8.87	10.25	11.46
	045156	0.156	2.25	3.18	3.90	4.50	5.03	7.12	10.06	12.32	14.23	15.91
	045171	0.171	2.84	4.02	4.92	5.68	6.35	8.98	12.70	15.56	17.96	20.08
	045188	0.188	3.47	4.91	6.01	6.94	7.76	10.98	15.52	19.01	21.95	24.54
	045250	0.250	6.22	8.80	10.77	12.44	13.91	19.67	27.82	34.07	39.34	43.98
	045288	0.288	8.17	11.55	14.15	16.33	18.26	25.83	36.53	44.74	51.66	57.75
57	057250	0.250	6.80	9.62	11.78	13.60	15.21	21.50	30.41	37.25	43.01	48.08

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series BZ Brush Shower Fan Nozzle

Fan Angle (degree) at 80 psi	Nozzle Number	Nozzle Orifice (inch)	Flow Rate (Gallons per Minute)									
			Pressure (PSI)									
			20	40	60	80	100	200	400	600	800	1000
60	060028	0.028	0.07	0.10	0.12	0.14	0.16	0.22	0.32	0.39	0.45	0.50
	060031	0.031	0.11	0.15	0.18	0.21	0.24	0.34	0.47	0.58	0.67	0.75
	060040	0.040	0.17	0.24	0.29	0.34	0.38	0.53	0.75	0.92	1.07	1.19
	060050	0.050	0.25	0.35	0.43	0.49	0.55	0.78	1.11	1.35	1.56	1.75
	060055	0.055	0.40	0.56	0.68	0.79	0.88	1.25	1.77	2.16	2.50	2.79
	060062	0.062	0.39	0.55	0.68	0.78	0.88	1.24	1.75	2.15	2.48	2.77
	060070	0.070	0.65	0.92	1.13	1.30	1.46	2.06	2.92	3.57	4.13	4.61
	060079	0.079	0.69	0.98	1.20	1.39	1.55	2.19	3.10	3.80	4.39	4.91
	060086	0.086	0.77	1.09	1.33	1.54	1.72	2.43	3.44	4.22	4.87	5.44
	060094	0.094	0.90	1.27	1.55	1.79	2.00	2.83	4.00	4.90	5.66	6.33
	060109	0.109	1.07	1.51	1.84	2.13	2.38	3.37	4.76	5.83	6.74	7.53
	060118	0.118	1.40	1.98	2.42	2.80	3.13	4.43	6.26	7.67	8.85	9.90
	060125	0.125	1.53	2.16	2.64	3.05	3.41	4.82	6.82	8.35	9.64	10.78
	060141	0.141	1.87	2.65	3.24	3.75	4.19	5.92	8.37	10.26	11.84	13.24
	060156	0.156	2.23	3.15	3.85	4.45	4.98	7.04	9.95	12.19	14.07	15.73
	060188	0.188	3.39	4.80	5.88	6.79	7.59	10.73	15.18	18.59	21.47	24.00
70	070033	0.033	0.18	0.26	0.31	0.36	0.40	0.57	0.81	0.99	1.14	1.28
	070070	0.070	0.43	0.61	0.75	0.86	0.96	1.36	1.92	2.36	2.72	3.04
75	075040	0.040	0.17	0.24	0.30	0.35	0.39	0.55	0.77	0.94	1.09	1.22
	075055	0.055	0.27	0.38	0.46	0.53	0.60	0.84	1.19	1.46	1.69	1.88
	075075	0.075	0.39	0.56	0.68	0.79	0.88	1.25	1.76	2.16	2.50	2.79
	075078	0.078	0.57	0.80	0.98	1.13	1.26	1.79	2.53	3.09	3.57	4.00

Contact Kadant Solutions Division for additional sizes.

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[Go to Brush Shower Fan/Jet Nozzles Tab](#)

Series BZ Brush Shower Fan Nozzle



Flow Rate (Liters per Minute)

Fan Angle (degree) at 552 kPa (5.52 Bar)	Code	Nozzle Orifice (mm)	Pressure kPa (Bars)									
			100	200	300	400	500	750	1000	2000	4000	7000
			1.00	2.00	3.00	4.00	5.00	7.50	10.00	20.00	40.00	70.00
15	015040	1.02	0.52	0.73	0.89	1.03	1.15	1.41	1.63	2.31	3.26	4.31
	015055	1.40	0.92	1.30	1.59	1.84	2.05	2.52	2.90	4.11	5.81	7.69
	015070	1.78	1.59	2.25	2.75	3.18	3.56	4.35	5.03	7.11	10.06	13.30
	015093	2.36	2.74	3.87	4.74	5.47	6.12	7.49	8.65	12.23	17.30	22.88
	015109	2.77	3.26	4.61	5.58	6.45	7.21	8.83	10.19	14.41	20.38	26.96
	015125	3.18	5.33	6.42	7.87	9.09	10.37	11.97	14.36	20.31	28.73	38.01
30	030040	1.02	0.53	0.75	0.92	1.06	1.19	1.46	1.68	2.38	3.36	4.45
	030055	1.40	0.89	1.25	1.54	1.77	1.98	2.43	2.80	3.96	5.61	7.42
	030063	1.60	1.30	1.83	2.25	2.59	2.90	3.55	4.10	5.80	8.21	10.85
	030070	1.78	1.58	2.23	2.74	3.16	3.53	4.33	4.99	7.06	9.99	13.21
	030094	2.39	2.74	3.87	4.75	5.48	6.13	7.50	8.66	12.25	17.33	22.92
	030110	2.79	4.03	5.70	6.98	8.06	9.01	11.03	12.74	18.02	25.48	33.71
	030125	3.18	4.54	6.43	7.87	9.09	10.16	12.45	14.37	20.32	28.74	38.02
	030144	3.66	6.74	9.53	11.67	13.47	15.06	18.45	21.30	30.12	42.60	56.35
	030156	3.96	7.45	10.53	12.90	14.89	16.65	20.39	23.55	33.30	47.09	62.30
	030171	4.34	8.14	11.51	14.10	16.28	18.20	22.29	25.74	36.40	51.47	68.09
	030188	4.78	10.80	15.27	18.70	21.60	24.14	29.57	34.15	48.29	68.29	90.34
	030203	5.16	13.34	18.87	23.11	26.68	29.83	36.54	42.19	59.67	84.38	111.63
	030218	5.54	16.28	23.02	28.19	32.55	36.40	44.58	51.47	72.79	102.95	136.19
	030250	6.35	21.84	30.89	37.83	43.69	48.84	59.82	69.08	97.69	138.15	182.76
	030281	7.14	25.07	35.46	43.43	50.15	56.07	68.67	79.29	112.14	158.58	209.79
	030296	7.52	5.85	7.04	8.63	9.96	11.37	13.13	15.75	22.28	31.50	41.68
40	040111	2.82	3.88	5.49	6.73	7.77	8.68	10.64	12.28	17.37	24.56	32.50
	040125	8.00	5.33	6.42	7.87	9.09	10.37	11.97	14.36	20.31	28.73	38.01
45	045033	0.84	0.45	0.63	0.78	0.90	1.01	1.24	1.43	2.02	2.85	3.77
	045036	0.91	0.62	0.88	1.08	1.25	1.40	1.97	2.79	3.42	3.95	4.42
	045040	1.02	0.76	1.07	1.31	1.51	1.69	2.39	3.39	4.15	4.79	5.35
	045050	1.27	0.92	1.30	1.60	1.87	2.09	2.56	2.96	4.18	5.91	7.82
	045055	1.40	1.22	1.73	2.12	2.45	2.74	3.35	3.87	5.48	7.75	10.25
	045070	1.78	1.69	2.39	2.93	3.38	3.78	4.63	5.35	7.57	10.70	14.16
	045094	2.39	2.77	3.92	4.80	5.54	6.20	7.59	8.77	12.40	17.53	23.19
	045110	2.79	3.95	5.58	6.84	7.90	8.83	10.81	12.48	17.66	24.97	33.03
	045125	3.18	5.22	7.38	9.04	10.44	11.68	14.30	16.51	23.35	33.02	43.69
	045156	3.96	7.25	10.26	12.56	14.50	16.22	19.86	22.93	32.43	45.87	60.68
	045171	4.37	9.15	12.94	15.85	18.31	20.47	25.07	28.94	40.93	57.89	76.58
	045188	4.78	10.94	15.48	18.96	21.89	24.98	28.85	34.61	48.95	69.22	91.57
	045250	6.35	20.05	28.35	34.72	40.09	44.82	54.90	63.39	89.65	126.78	167.72
	045288	7.32	26.39	37.24	45.60	52.66	60.08	69.40	83.26	117.75	166.52	220.28
57	057250	6.35	21.92	30.99	37.96	43.83	49.00	60.02	69.30	98.01	138.60	183.36

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series BZ Brush Shower Fan Nozzle

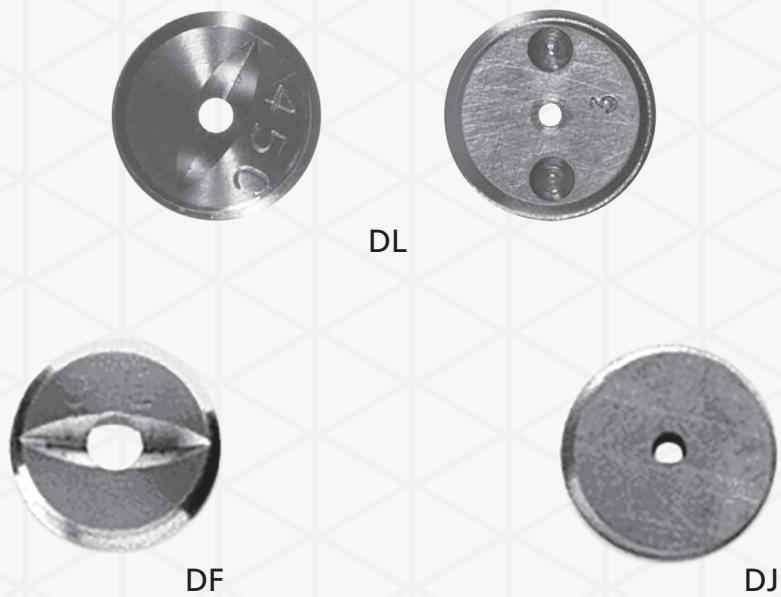
Fan Angle (degree) at 552 kPa (5.52 Bar)	Code	Nozzle Orifice (mm)	Flow Rate (Liters per Minute)									
			Pressure kPa (Bars)									
			100	200	300	400	500	750	1000	2000	4000	7000
60	060028	0.71	0.23	0.32	0.39	0.46	0.51	0.62	0.72	1.02	1.44	1.91
	060031	0.79	0.34	0.48	0.59	0.68	0.77	0.94	1.08	1.53	2.16	2.86
	060040	1.02	0.54	0.77	0.94	1.09	1.21	1.49	1.72	2.43	3.43	4.54
	060050	1.270	0.80	1.13	1.38	1.59	1.78	2.18	2.52	3.56	5.04	6.67
	060055	1.40	1.27	1.80	2.21	2.55	2.85	3.49	4.03	5.69	8.05	10.65
	060062	1.52	0.87	1.23	1.50	1.73	1.94	2.74	3.88	4.75	5.48	6.13
	060070	1.57	1.26	1.79	2.19	2.53	2.82	3.46	3.99	5.65	7.99	10.57
	060079	1.78	2.24	3.16	3.87	4.47	5.10	5.90	7.07	10.00	14.14	18.71
	060086	2.01	2.67	3.77	4.62	5.34	5.97	8.44	11.93	14.62	16.88	18.87
	060094	2.18	2.48	3.51	4.30	4.96	5.55	6.80	7.85	11.10	15.69	20.76
	060109	2.39	2.88	4.08	5.00	5.77	6.45	7.90	9.12	12.90	18.25	24.14
	060118	2.77	3.43	4.85	5.94	6.86	7.67	9.40	10.85	15.35	21.71	28.72
	060125	3.00	4.51	6.38	7.82	9.03	10.09	12.36	14.27	20.18	28.54	37.76
	060141	3.18	5.75	8.11	9.94	11.47	13.09	15.12	18.14	25.66	36.28	48.00
	060156	3.96	7.17	10.14	12.42	14.34	16.04	19.64	22.68	32.07	45.36	60.00
	060188	4.78	10.94	15.47	18.95	21.88	24.46	29.96	34.60	48.93	69.19	91.53
70	070033	6.35	0.58	0.82	1.01	1.16	1.33	1.53	1.84	2.60	3.68	4.87
	070070	0.84	1.39	1.96	2.40	2.77	3.16	3.65	4.38	6.20	8.77	11.60
75	075040	3.58	7.12	10.06	12.32	14.23	15.91	22.50	31.82	38.97	45.00	50.32
	075055	1.02	0.24	0.33	0.41	0.47	0.54	0.62	0.75	1.06	1.50	1.98
	075075	1.40	1.26	1.78	2.18	2.52	2.87	3.32	3.98	5.63	7.97	10.54
	075078	1.78	1.82	2.57	3.15	3.64	4.15	4.79	5.75	8.13	11.50	15.21

Contact Kadant Solutions Division for additional sizes.

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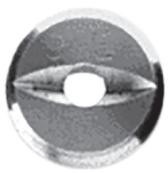
[Go to Brush Shower Fan/Jet Nozzles Tab](#)

Disc Fan/Jet Nozzles



Products

- ▶ Series DF Fan Disc Nozzle 57
- ▶ Series DJ Jet Disc Nozzle 60
- ▶ Series DL Threaded Fan and Jet Disc Nozzle 62
- ▶ Series DS Fan and Needle Jet Disc Nozzle 65



Fan Disc Nozzles

Series DF Fan Disc Nozzle

Nozzle Characteristics

The DF fan disc nozzle is designed to deliver liquid in a fan pattern with up to a 90° angle. The disc has been designed for long life, and to minimize both nozzle plugging and water use. The optional extension tube is available for nozzles installed on the bottom of a shower pipe (3 to 9 o'clock) to prevent debris from being drawn from the bottom of the pipe and into the nozzle, causing it to plug.

The DF disc can be used in place of the FH or VH fan inserts or the DJ nozzle disc.

Construction

All DF series nozzles are constructed of 316SS. As an option, the disc retainer nut can be plated with ArresTech to prevent thread galling during installation. The nozzles are designed for use in systems that operate up to 300 psig.

Components



Nut, Nozzle Retainer

3/4"-27

2007 – 316SS

B36766 – 316SS with ArresTech plating



Fan Disc



Extension Tube (left)

A-19691 Extension Tube, Internal, 1.2"

Spacer (right)

2148 (nylon)

2148A (316SS)

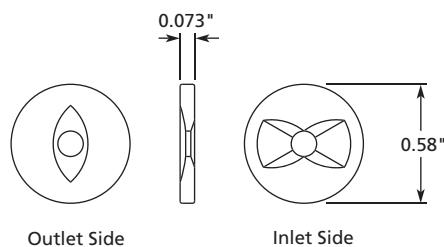


Base Nozzle*

3/4"-27

2006C – Base Nozzle

**Welded to shower – not normally replaced.*



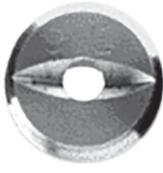
Fan Disc Ordering Information			
Nozzle Series	DF	S	045040 Fan/Orifice Number

Construction Material	Code
316SS	S

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

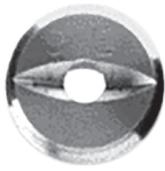
Series DF Fan Disc Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Code	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
30	DF30028	0.028	0.08	0.11	0.14	0.16	0.18	0.21	0.25	0.30	23	30	34
	DF30033	0.033	0.11	0.15	0.19	0.22	0.24	0.30	0.34	0.42	23	30	34
	DF30040	0.040	0.16	0.23	0.28	0.32	0.36	0.44	0.51	0.62	24	30	34
	DF30055	0.055	0.30	0.43	0.52	0.61	0.68	0.83	0.96	1.17	24	30	34
	DF30070	0.070	0.49	0.69	0.85	0.98	1.10	1.34	1.55	1.90	25	30	34
	DF30093	0.093	0.88	1.25	1.53	1.77	1.98	2.42	2.80	3.42	24	30	34
	DF30125	0.125	1.56	2.21	2.71	3.13	3.50	4.28	4.94	6.05	25	30	34
	DF30156	0.156	2.43	3.44	4.22	4.87	5.44	6.67	7.70	9.43	25	30	34
	DF30180	0.180	3.24	4.58	5.61	6.48	7.25	8.88	10.25	12.55	25	30	34
	DF30187	0.187	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	25	30	34
	DF30191	0.191	3.69	5.22	6.39	7.38	8.25	10.11	11.67	14.29	26	30	34
	DF30219	0.219	4.80	6.79	8.31	9.60	10.73	13.14	15.17	18.58	26	30	34
45	DF30250	0.250	6.25	8.84	10.83	12.51	13.98	17.12	19.77	24.22	26	30	34
	DF45028	0.028	0.08	0.11	0.14	0.16	0.18	0.22	0.25	0.31	38	45	49
	DF45033	0.033	0.11	0.16	0.19	0.22	0.25	0.31	0.35	0.43	38	45	49
	DF45040	0.040	0.16	0.23	0.28	0.33	0.37	0.45	0.52	0.64	38	45	49
	DF45055	0.055	0.31	0.44	0.54	0.62	0.69	0.85	0.98	1.20	39	45	49
	DF45070	0.070	0.50	0.71	0.87	1.00	1.12	1.38	1.59	1.95	40	45	49
	DF45093	0.093	0.91	1.28	1.57	1.81	2.03	2.48	2.86	3.51	40	45	49
	DF45125	0.125	1.60	2.26	2.77	3.20	3.58	4.39	5.06	6.20	41	45	49
	DF45156	0.156	2.49	3.53	4.32	4.99	5.58	6.83	7.89	9.66	41	45	49
	DF45187	0.187	3.62	5.12	6.27	7.25	8.10	9.92	11.46	14.03	40	45	49
60	DF45219	0.219	4.92	6.95	8.51	9.83	10.99	13.46	15.55	19.04	40	45	49
	DF60028	0.028	0.08	0.12	0.14	0.17	0.18	0.23	0.26	0.32	52	60	64
	DF60033	0.033	0.11	0.16	0.20	0.23	0.26	0.31	0.36	0.44	52	60	64
	DF60040	0.040	0.17	0.24	0.29	0.34	0.38	0.46	0.53	0.65	53	60	64
	DF60055	0.055	0.32	0.45	0.55	0.64	0.71	0.87	1.01	1.23	53	60	64
	DF60070	0.070	0.52	0.73	0.89	1.03	1.15	1.41	1.63	2.00	55	60	64
	DF60093	0.093	0.93	1.32	1.61	1.86	2.08	2.55	2.94	3.60	55	60	64
	DF60125	0.125	1.65	2.33	2.85	3.29	3.68	4.51	5.20	6.37	55	60	64
90	DF60156	0.156	2.56	3.62	4.44	5.13	5.73	7.02	8.11	9.93	55	60	64
	DF90016	0.016	0.03	0.05	0.06	0.06	0.07	0.09	0.10	0.13	84	90	96
	DF90022	0.022	0.06	0.09	0.11	0.12	0.14	0.17	0.19	0.24	84	90	96
	DF90028	0.028	0.10	0.14	0.17	0.20	0.22	0.27	0.31	0.38	84	90	96
	DF90033	0.033	0.14	0.19	0.24	0.28	0.31	0.38	0.44	0.53	84	90	95
	DF90040	0.040	0.20	0.29	0.35	0.40	0.45	0.55	0.64	0.78	85	90	94
	DF90055	0.055	0.38	0.54	0.66	0.76	0.86	1.05	1.21	1.48	85	90	94
	DF90070	0.070	0.62	0.88	1.07	1.24	1.39	1.70	1.96	2.40	85	90	93
	DF90093	0.093	1.12	1.58	1.93	2.23	2.50	3.06	3.53	4.33	86	90	93
	DF90125	0.125	1.98	2.79	3.42	3.95	4.42	5.41	6.25	7.65	85	90	93

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series DF Fan Disc Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Code	Nozzle Orifice (mm)	Fan Angle (degree)	Pressure kPa (Bars)								Fan Angle at kPa (Bar)*		
				100	200	300	400	500	1000	1500	2000	138	275	552
				1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52
30	DF30028	0.71	30	0.25	0.36	0.44	0.51	0.57	0.80	0.98	1.13	23	30	34
	DF30033	0.84	30	0.35	0.50	0.61	0.70	0.79	1.11	1.36	1.57	23	30	34
	DF30040	1.02	30	0.52	0.73	0.89	1.03	1.15	1.63	2.00	2.31	24	30	34
	DF30055	1.40	30	0.98	1.38	1.69	1.95	2.18	3.08	3.78	4.36	24	30	34
	DF30070	1.78	30	1.58	2.23	2.74	3.16	3.53	5.00	6.12	7.07	25	30	34
	DF30093	2.36	30	2.85	4.03	4.94	5.70	6.37	9.01	11.04	12.74	24	30	34
	DF30125	3.18	30	5.04	7.13	8.73	10.10	11.30	15.90	19.51	22.53	25	30	34
	DF30156	3.96	30	7.85	11.10	13.60	15.70	17.50	24.80	30.39	35.09	25	30	34
	DF30180	4.57	30	10.40	14.80	18.10	20.90	23.40	33.00	40.46	46.72	25	30	34
	DF30187	4.75	30	11.40	16.10	19.70	22.80	25.50	36.00	44.14	50.97	25	30	34
	DF30191	4.85	30	11.76	16.63	20.36	23.51	26.29	37.17	45.53	52.57	25	30	34
45	DF30219	5.56	30	15.50	21.90	26.80	30.90	34.60	48.90	59.90	69.16	26	30	34
	DF30250	6.35	30	20.20	28.50	34.90	40.30	45.10	63.70	78.06	90.13	26	30	34
	DF45028	0.71	45	0.26	0.37	0.45	0.52	0.58	0.82	1.00	1.16	26	30	34
	DF45033	0.84	45	0.36	0.51	0.62	0.72	0.80	1.14	1.39	1.61	38	45	49
	DF45040	1.02	45	0.53	0.75	0.92	1.06	1.18	1.67	2.05	2.36	38	45	49
	DF45055	1.40	45	1.00	1.41	1.73	2.00	2.23	3.16	3.87	4.47	38	45	49
	DF45070	1.78	45	1.62	2.29	2.80	3.24	3.62	5.12	6.27	7.24	39	45	49
	DF45093	2.36	45	2.92	4.13	5.06	5.84	6.53	9.23	11.31	13.06	40	45	49
	DF45125	3.18	45	5.16	7.30	8.94	10.30	11.50	16.30	19.99	23.09	40	45	49
	DF45156	3.96	45	8.04	11.40	13.90	16.10	18.00	25.40	31.14	35.96	41	45	49
	DF45187	4.75	45	11.70	16.50	20.20	23.40	26.10	36.90	45.23	52.22	41	45	49
	DF45219	5.56	45	15.80	22.40	27.40	31.70	35.40	50.10	61.37	70.86	40	45	49
60	DF60028	0.71	60	0.27	0.38	0.46	0.53	0.60	0.84	1.03	1.19	40	45	49
	DF60033	0.84	60	0.37	0.52	0.64	0.74	0.83	1.17	1.43	1.65	52	60	64
	DF60040	1.02	60	0.54	0.77	0.94	1.09	1.21	1.72	2.10	2.43	52	60	64
	DF60055	1.40	60	1.03	1.45	1.78	2.05	2.30	3.25	3.98	4.59	53	60	64
	DF60070	1.78	60	1.66	2.35	2.88	3.33	3.53	5.26	6.44	7.44	53	60	64
	DF60093	2.36	60	3.00	4.24	5.20	6.00	6.71	9.49	11.62	13.41	55	60	64
	DF60125	3.18	60	5.30	7.50	9.19	10.60	11.90	16.80	20.50	23.70	55	60	64
	DF60156	3.96	60	8.26	11.70	14.30	16.50	18.50	26.10	32.00	36.95	55	60	64
90	DF90016	0.41	90	0.10	0.15	0.18	0.21	0.23	0.33	0.40	0.47	55	60	64
	DF90022	0.56	90	0.20	0.28	0.34	0.39	0.44	0.62	0.76	0.88	84	90	96
	DF90028	0.71	90	0.32	0.45	0.55	0.64	0.71	1.01	1.24	1.43	84	90	96
	DF90033	0.84	90	0.44	0.63	0.77	0.89	0.99	1.40	1.72	1.98	84	90	96
	DF90040	1.02	90	0.65	0.92	1.13	1.30	1.46	2.06	2.53	2.92	84	90	95
	DF90055	1.40	90	1.23	1.74	2.14	2.47	2.76	3.90	4.77	5.51	85	90	94
	DF90070	1.78	90	2.00	2.82	3.46	3.99	4.46	6.31	7.73	8.93	85	90	94
	DF90093	2.36	90	3.60	5.09	6.24	7.20	8.05	11.40	13.95	16.10	85	90	93
	DF90125	3.18	90	6.37	9.00	11.00	12.70	14.20	20.10	24.66	28.48	86	90	93

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Jet Disc Nozzles

Series DJ Jet Disc Nozzle



Nozzle Characteristics

The DJ jet disc nozzle can be supplied in 316SS construction or with Duracerm ceramic, ruby, or sapphire insert material. The nozzle is designed to deliver a solid stream of water at a wide range of pressures. Ruby and sapphire inserts have excellent erosion resistance to liquid flow, maximizing nozzle life. Duracerm ceramic is one of the toughest shower nozzle materials available. It will withstand thermal shock and provide long service life. The optional extension tube is available for nozzles installed on the bottom of a shower pipe (3 to 9 o'clock) to prevent debris from being drawn from the bottom of the pipe and into the nozzle, causing it to plug.

The DJ jet disc can be used in place of the FH or VH fan inserts, or the VF nozzle disc.

Construction

All DJ series nozzles are constructed of 316SS. As an option, the nozzle retainer nut can be plated with ArresTech to prevent thread galling during installation. The nozzles are designed for use in systems that operate up to 300 psig.

Components



Nut, Nozzle Retainer

3/4"-27

2007 – 316SS

B36766 – 316SS with ArresTech plating



Jet Disc



Extension Tube (left)

A-19691 Extension Tube, Internal, 1.2"

Spacer (right)

2148 (nylon)

2148A (316SS)



Base Nozzle*

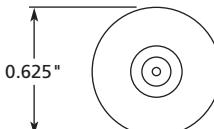
3/4"-27

2006C — Base Nozzle

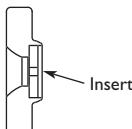
**Welded to shower – not normally replaced. Only for use with 0.58" diameter disc.*



Jet Disc
Solid 316ss



Jet Disc
Duracerm/Ruby/Sapphire Insert



Can be used to replace discs made by
Sinclair, Stamm, and Spraying Systems.

Jet Disc Ordering Information				
Nozzle Series	Insert Material	R	S	Orifice Number
DJ	R	S	040	Orifice Number

Construction Material	Code
316SS	S

Insert Material	Code
Ruby	R
Sapphire	P
Duracerm	D
316SS	S

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series DJ Jet Disc Nozzle

Flow Rate (Gallons per Minute)

Material			Nozzle Number	Orifice Diameter (inch)	Pressure (PSI)										
316 Stainless Steel	Duracerm Ceramic	Ruby/Sapphire			20	40	60	80	100	150	200	300			
x			000	0.000	Nozzle Blank (316 stainless steel) used to disable flow										
		x	005	0.005	0.002	0.003	0.004	0.004	0.005	0.006	0.006	0.008			
x		x	010	0.010	0.008	0.012	0.014	0.016	0.018	0.022	0.026	0.032			
x			014	0.014	0.016	0.023	0.028	0.032	0.036	0.044	0.050	0.062			
x		x	018	0.018	0.026	0.037	0.046	0.053	0.059	0.072	0.083	0.102			
x		x	023	0.023	0.043	0.061	0.075	0.086	0.096	0.118	0.136	0.167			
x		x	028	0.028	0.064	0.090	0.110	0.128	0.143	0.175	0.202	0.247			
x		x	033	0.033	0.089	0.125	0.153	0.177	0.198	0.243	0.280	0.343			
x	x	x	040	0.040	0.13	0.18	0.23	0.26	0.29	0.36	0.41	0.50			
x			055	0.055	0.25	0.35	0.43	0.49	0.55	0.67	0.78	0.95			
x			070	0.070	0.40	0.56	0.69	0.80	0.89	1.09	1.26	1.54			
x			073	0.073	0.43	0.61	0.75	0.87	0.97	1.19	1.37	1.68			
x			076	0.076	0.47	0.66	0.81	0.94	1.05	1.29	1.49	1.82			
x			093	0.093	0.72	1.02	1.24	1.44	1.61	1.97	2.27	2.78			
x			125	0.125	1.27	1.80	2.20	2.54	2.84	3.48	4.02	4.92			
x			156	0.156	1.98	2.80	3.43	3.96	4.43	5.42	6.26	7.67			
x			187	0.187	2.88	4.07	4.98	5.75	6.43	7.87	9.09	11.14			
x			219	0.219	3.90	5.52	6.76	7.80	8.72	10.68	12.34	15.11			

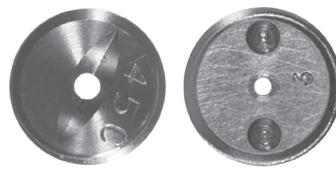
Flow Rate (Liters per Minute)

Material			Nozzle Number	Orifice Diameter (mm)	Pressure kPa (Bars)										
316 Stainless Steel	Duracerm Ceramic	Ruby/Sapphire			100	200	300	400	500	1000	1500	2000			
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00					
x			000	0.000	Nozzle Blank (316 stainless steel) used to disable flow										
		x	005	0.13	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03			
x		x	010	0.25	0.03	0.04	0.05	0.05	0.06	0.08	0.10	0.12			
x			014	0.36	0.05	0.07	0.09	0.10	0.11	0.16	0.20	0.23			
x		x	018	0.46	0.08	0.12	0.15	0.17	0.19	0.27	0.33	0.38			
x		x	023	0.58	0.14	0.20	0.24	0.28	0.31	0.44	0.54	0.62			
x		x	028	0.71	0.21	0.29	0.36	0.41	0.46	0.65	0.80	0.92			
x		x	033	0.84	0.29	0.40	0.49	0.57	0.64	0.90	1.11	1.28			
x	x	x	040	1.02	0.42	0.59	0.73	0.84	0.94	1.33	1.62	1.88			
x			055	1.40	0.79	1.12	1.37	1.59	1.77	2.51	3.07	3.55			
x			070	1.78	1.28	1.82	2.23	2.57	2.87	4.06	4.98	5.75			
x			073	1.85	1.40	1.98	2.42	2.79	3.12	4.42	5.41	6.25			
x			076	1.93	1.51	2.14	2.62	3.03	3.39	4.79	5.86	6.77			
x			093	2.36	2.32	3.28	4.01	4.63	5.18	7.33	8.97	10.36			
x			125	3.18	4.10	5.79	7.10	8.19	9.16	13.00	15.87	18.32			
x			156	3.96	6.38	9.02	11.10	12.80	14.30	20.20	24.71	28.54			
x			187	4.75	9.27	13.10	16.10	18.50	20.70	29.30	35.89	41.45			
x			219	5.56	12.60	17.80	21.80	25.20	28.10	39.80	48.71	56.24			

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Threaded Fan & Jet Disc Nozzles



Series DL Threaded Fan and Jet Disc Nozzle

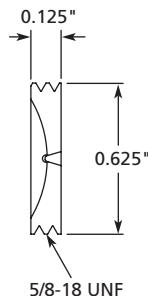
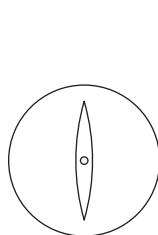
Nozzle Characteristics

The DL threaded fan and jet disc nozzle is typically used for applications where space is limited. Disc installation can be accomplished so it does not extend beyond the wall of the pipe. The minimum recommended pipe size for installation is 1" schedule 80, with optimal engagement in 1.25" schedule 80 and larger pipes.

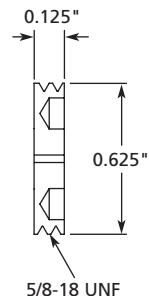
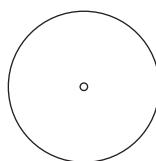
Construction

All DL series nozzles are constructed of 316SS. The nozzles are designed for use in systems that operate up to 300 psig.

Components



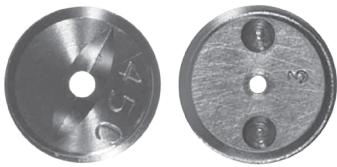
Fan Disc



Jet Disc

Fan/Jet Disc Ordering Information			
Nozzle Series	DL	S	000040 Fan/Orifice Number

Construction Material	Code
316SS	S



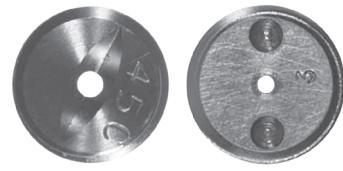
Series DL Threaded Fan and Jet Disc Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Number	Orifice (inch)	Pressure (PSI)							Fan Angle Degree at psi*			
			20	40	60	80	100	150	200	300			
Jet	00031	0.031	0.08	0.11	0.14	0.16	0.17	0.21	0.25	0.30	0	0	0
	00040	0.040	0.13	0.18	0.23	0.26	0.29	0.36	0.41	0.50	0	0	0
	00062	0.062	0.31	0.44	0.54	0.63	0.70	0.86	0.99	1.21	0	0	0
	00093	0.093	0.72	1.02	1.24	1.44	1.61	1.97	2.27	2.78	0	0	0
	00125	0.125	1.27	1.80	2.20	2.54	2.84	3.48	4.02	4.92	0	0	0
30	30063	0.062	0.38	0.54	0.67	0.77	0.86	1.05	1.22	1.49	25	30	34
	30094	0.094	0.88	1.25	1.53	1.77	1.98	2.42	2.80	3.42	25	30	34
	30125	0.125	1.56	2.21	2.71	3.13	3.50	4.28	4.94	6.05	25	30	34
	30156	0.156	2.43	3.44	4.22	4.87	5.44	6.67	7.70	9.43	25	30	34
60	60031	0.031	0.10	0.14	0.18	0.20	0.23	0.28	0.32	0.39	52	60	64
	60040	0.040	0.17	0.24	0.29	0.34	0.38	0.46	0.53	0.65	52	60	64
	60062	0.062	0.40	0.57	0.70	0.81	0.91	1.11	1.28	1.57	53	60	64
	60093	0.093	0.93	1.32	1.61	1.86	2.08	2.55	2.94	3.60	53	60	64
	60118	0.118	1.47	2.07	2.54	2.93	3.28	4.02	4.64	5.68	55	60	64
	60125	0.125	1.65	2.33	2.85	3.29	3.68	4.51	5.20	6.37	55	60	64
	60156	0.156	2.56	3.62	4.44	5.13	5.73	7.02	8.11	9.93	55	60	64
	60187	0.187	3.68	5.21	6.38	7.37	8.24	10.09	11.65	14.27	55	60	64
	60219	0.219	5.05	7.15	8.75	10.10	11.30	13.84	15.98	19.57	55	60	64
	60250	0.250	6.58	9.31	11.40	13.17	14.72	18.03	20.82	25.50	55	60	64
80	80031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	68	80	89
	80040	0.040	0.17	0.25	0.36	0.35	0.95	0.48	0.56	0.69	70	80	87
	80062	0.062	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	71	80	86
	80093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	74	80	83
	80118	0.118	1.71	2.41	2.95	3.41	3.81	4.67	5.39	6.61	74	80	83
	80125	0.125	1.91	2.71	3.32	3.83	4.28	5.24	6.05	7.41	74	80	83
	80156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	11.0	74	80	83
90	90031	0.031	0.12	0.17	0.21	0.24	0.27	0.33	0.38	0.46	86	90	93
	90040	0.040	0.20	0.29	0.35	0.40	0.45	0.55	0.64	0.78	86	90	93
	90062	0.062	0.48	0.68	0.83	0.96	1.07	1.32	1.52	1.86	86	90	93
	90093	0.093	1.12	1.58	1.93	2.23	2.50	3.06	3.53	4.33	86	90	93
	90118	0.118	1.74	2.46	3.01	3.48	3.89	4.76	5.50	6.74	86	90	93
	90125	0.125	1.98	2.79	3.42	3.95	4.42	5.41	6.25	7.65	86	90	93
	90156	0.156	3.04	4.30	5.27	6.08	6.80	8.33	9.61	11.77	86	90	93

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

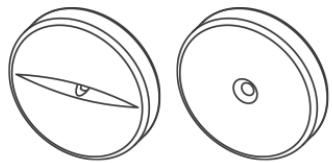
Series DL Threaded Fan and Jet Disc Nozzle



Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Number	Orifice (mm)	Pressure kPa (Bars)									Fan Angle Degree at kPa (Bars)*		
			100	200	300	400	500	1000	1500	2000		138	275	552
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00		1.38	2.75	5.52
Jet	00031	0.787	0.25	0.36	0.44	0.50	0.56	0.80	0.98	1.13	0	0	0	0
	00040	1.016	0.42	0.59	0.73	0.84	0.94	1.33	1.62	1.88	0	0	0	0
	00062	1.570	0.99	1.41	1.72	1.99	2.22	3.14	3.85	4.44	0	0	0	0
	00093	2.360	2.32	3.28	4.01	4.63	5.18	7.33	8.97	10.36	0	0	0	0
	00125	3.180	4.10	5.79	7.10	8.19	9.16	13.00	15.87	18.32	0	0	0	0
30	30063	1.570	1.24	1.75	2.15	2.48	2.77	3.92	4.80	5.54	25	30	34	
	30094	2.388	2.85	4.03	4.94	5.70	6.37	9.01	11.04	12.74	25	30	34	
	30125	3.180	5.04	7.13	8.73	10.10	11.30	15.90	19.51	22.53	25	30	34	
	30156	3.960	7.85	11.10	13.60	15.70	17.50	24.80	30.39	35.09	25	30	34	
60	60031	0.787	0.33	0.46	0.56	0.65	0.73	1.03	1.26	1.46	52	60	64	
	60040	1.016	0.54	0.77	0.94	1.09	1.21	1.72	2.10	2.43	52	60	64	
	60062	1.570	1.30	1.85	2.26	2.61	2.92	4.13	5.05	5.83	53	60	64	
	60093	2.360	3.00	4.24	5.20	6.00	6.71	9.49	11.62	13.41	53	60	64	
	60118	3.000	4.73	6.68	8.19	9.45	10.60	14.90	18.30	21.14	55	60	64	
	60125	3.180	5.30	7.50	9.19	10.60	11.90	16.80	20.54	23.72	55	60	64	
	60156	3.960	8.26	11.70	14.30	16.50	18.50	26.10	32.00	36.95	55	60	64	
	60187	4.750	11.80	16.68	20.43	23.59	26.37	37.30	45.68	52.75	55	60	64	
	60219	5.563	16.23	22.95	28.11	32.46	36.29	51.32	62.85	72.58	55	60	64	
	60250	6.350	21.17	29.94	36.67	42.34	47.33	66.94	81.99	94.67	55	60	64	
80	80031	0.787	0.42	0.59	0.72	0.84	0.95	1.10	1.32	1.87	68	80	89	
	80040	1.016	0.70	0.98	1.21	1.39	1.59	1.83	2.20	3.11	70	80	87	
	80062	1.575	1.67	2.36	2.90	3.34	3.82	4.41	5.29	7.48	71	80	86	
	80093	2.362	3.76	5.32	6.52	7.53	8.59	9.92	11.90	16.83	74	80	83	
	80118	2.997	6.06	8.57	10.49	12.11	13.82	15.97	19.15	27.09	74	80	83	
	80125	3.175	6.80	9.61	11.77	13.59	15.51	17.92	21.49	30.40	74	80	83	
	80156	3.962	10.58	14.97	18.34	21.17	24.16	27.91	33.48	47.34	74	80	83	
90	90031	0.787	0.46	0.64	0.79	0.91	1.04	1.20	1.44	2.04	86	90	93	
	90040	1.016	0.76	1.07	1.31	1.52	1.73	2.00	2.40	3.39	86	90	93	
	90062	1.575	1.82	2.58	3.15	3.64	4.16	4.80	5.76	8.14	86	90	93	
	90093	2.362	4.10	5.80	7.10	8.20	9.35	10.80	12.96	18.33	86	90	93	
	90118	2.997	6.60	9.33	11.43	13.19	15.05	17.39	20.86	29.50	86	90	93	
	90125	3.175	7.40	10.47	12.82	14.81	16.89	19.51	23.41	33.11	86	90	93	
	90156	3.962	11.53	16.31	19.97	23.06	26.31	30.39	36.46	51.56	86	90	93	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Fan & Needle Jet Disc Nozzles

Series DS Fan and Needle Jet Disc Nozzle

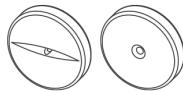
Nozzle Characteristics

The DS fan and needle jet disc nozzle is designed to replace discs in showers manufactured by Sinclair.

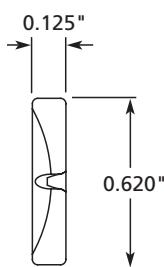
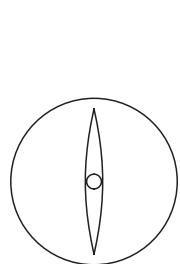
Construction

All DS series nozzles are constructed of 316SS. The nozzles are designed for use in systems that operate up to 300 psig.

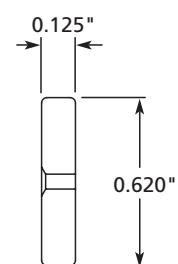
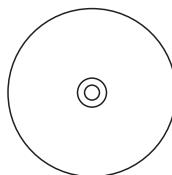
Components



Fan and Needle Jet Disc



Fan Disc



Jet Disc

Fan/Jet Disc Ordering Information			
Nozzle Series	DS	S	000040 Fan/Orifice Number

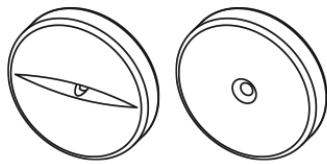
Construction Material	Code
316SS	S

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Disc Fan/Jet Nozzles Tab](#)

Series DS Fan and Needle Jet Disc Nozzle

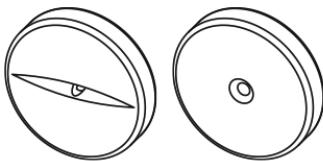


Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Fan/Orifice Number	Equivalent Orifice Diameter (inch)	Pressure (PSI)							
			20	40	60	80	100	150	200	300
Jet	000028	0.028	0.064	0.090	0.110	0.128	0.143	0.175	0.202	0.247
	000033	0.033	0.089	0.125	0.153	0.177	0.198	0.243	0.280	0.343
	000040	0.040	0.130	0.184	0.225	0.260	0.291	0.356	0.412	0.504
	000055	0.055	0.246	0.348	0.426	0.492	0.550	0.674	0.778	0.953
	000070	0.070	0.399	0.564	0.690	0.797	0.891	1.092	1.261	1.544
	000093	0.093	0.719	1.017	1.245	1.438	1.607	1.968	2.273	2.784
	000125	0.125	1.271	1.798	2.202	2.542	2.842	3.481	4.019	4.923
	000156	0.156	1.980	2.800	3.429	3.959	4.427	5.422	6.260	7.667
	000187	0.187	2.875	4.066	4.980	5.750	6.429	7.874	9.092	11.135
15	015040	0.040	0.157	0.222	0.271	0.313	0.350	0.429	0.496	0.607
	015055	0.055	0.296	0.419	0.513	0.593	0.662	0.811	0.937	1.147
	015070	0.070	0.480	0.679	0.831	0.960	1.073	1.314	1.518	1.859
	015093	0.093	0.865	1.224	1.499	1.731	1.935	2.370	2.737	3.352
	015125	0.125	1.530	2.164	2.651	3.061	3.422	4.191	4.839	5.927
	015156	0.156	2.383	3.371	4.128	4.767	5.330	6.527	7.537	9.231
	015187	0.187	3.496	4.960	6.084	7.032	7.866	9.643	11.141	13.654
	030028	0.028	0.078	0.111	0.136	0.157	0.175	0.215	0.248	0.304
30	030033	0.033	0.109	0.154	0.189	0.218	0.244	0.298	0.345	0.422
	030040	0.040	0.160	0.226	0.277	0.320	0.358	0.438	0.506	0.620
	030055	0.055	0.303	0.428	0.524	0.605	0.677	0.829	0.957	1.172
	030070	0.070	0.490	0.693	0.849	0.980	1.096	1.342	1.550	1.899
	030093	0.093	0.884	1.250	1.531	1.768	1.977	2.421	2.795	3.424
	030125	0.125	1.563	2.211	2.707	3.126	3.495	4.281	4.943	6.054
	030156	0.156	2.435	3.443	4.217	4.869	5.444	6.667	7.699	9.429
	030187	0.187	3.536	5.000	6.124	7.072	7.906	9.683	11.181	13.694
	045028	0.028	0.080	0.114	0.139	0.161	0.180	0.220	0.254	0.311
45	045033	0.033	0.112	0.158	0.193	0.223	0.250	0.306	0.353	0.432
	045040	0.040	0.164	0.232	0.284	0.328	0.367	0.449	0.519	0.635
	045055	0.055	0.310	0.439	0.537	0.620	0.693	0.849	0.981	1.201
	045070	0.070	0.502	0.710	0.870	1.005	1.123	1.375	1.588	1.945
	045093	0.093	0.906	1.281	1.569	1.811	2.025	2.480	2.864	3.508
	045125	0.125	1.602	2.265	2.774	3.203	3.581	4.386	5.065	6.203
	045156	0.156	2.494	3.528	4.321	4.989	5.578	6.831	7.888	9.661
	045187	0.187	3.623	5.123	6.275	7.246	8.101	9.921	11.456	14.031
	060028	0.028	0.083	0.117	0.143	0.165	0.185	0.226	0.261	0.320
60	060033	0.033	0.115	0.162	0.199	0.229	0.256	0.314	0.363	0.444
	060040	0.040	0.169	0.238	0.292	0.337	0.377	0.461	0.533	0.653
	060055	0.055	0.319	0.451	0.552	0.637	0.712	0.872	1.007	1.234
	060070	0.070	0.516	0.730	0.894	1.032	1.154	1.413	1.632	1.999

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series DS Fan and Needle Jet Disc Nozzle

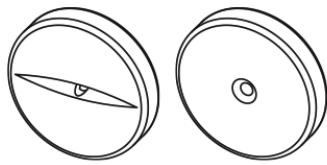
Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Fan/Orifice Number	Equivalent Orifice Diameter (inch)	Pressure (PSI)							
			20	40	60	80	100	150	200	300
60	060093	0.093	0.931	1.316	1.612	1.861	2.081	2.549	2.943	3.604
	060125	0.125	1.646	2.327	2.850	3.291	3.680	4.507	5.204	6.373
	060156	0.156	2.563	3.625	4.439	5.126	5.731	7.019	8.105	9.927
	060187	0.187	3.842	5.434	6.655	7.685	8.592	10.523	12.151	14.882
80	080028	0.028	0.088	0.125	0.153	0.177	0.198	0.242	0.280	0.342
	080033	0.033	0.124	0.175	0.214	0.247	0.277	0.339	0.391	0.479
	080040	0.040	0.177	0.250	0.306	0.354	0.395	0.484	0.559	0.685
	080055	0.055	0.318	0.450	0.551	0.636	0.712	0.871	1.006	1.232
	080070	0.070	0.396	0.560	0.686	0.792	0.885	1.084	1.252	1.534
	080093	0.093	1.061	1.500	1.837	2.121	2.372	2.905	3.354	4.108
	080125	0.125	1.768	2.500	3.062	3.536	3.953	4.841	5.590	6.847
	080156	0.156	2.828	4.000	4.899	5.657	6.325	7.746	8.944	10.954
	080187	0.187	4.243	6.000	7.348	8.485	9.487	11.619	13.416	16.432

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Series DS Fan and Needle Jet Disc Nozzle

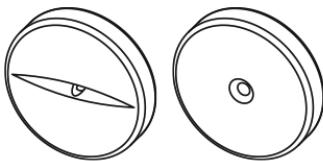


Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Fan/Orifice Number	Equivalent Orifice Diameter (mm)	Pressure kPa (Bars)							
			100	200	300	400	500	1000	1500	2000
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00
Jet	000028	0.711	0.21	0.29	0.36	0.41	0.46	0.65	0.80	0.92
	000033	0.838	0.29	0.40	0.49	0.57	0.64	0.90	1.11	1.28
	000040	1.016	0.42	0.59	0.73	0.84	0.94	1.33	1.62	1.88
	000055	1.397	0.79	1.12	1.37	1.59	1.77	2.51	3.07	3.55
	000070	1.780	1.28	1.82	2.23	2.57	2.87	4.06	4.98	5.75
	000093	2.360	2.32	3.28	4.01	4.63	5.18	7.33	8.97	10.36
	000125	3.180	4.10	5.79	7.10	8.19	9.16	13.00	15.87	18.32
	000156	3.960	6.38	9.02	11.10	12.80	14.30	20.20	24.71	28.54
	000187	4.750	9.27	13.10	16.10	18.50	20.70	29.30	35.89	41.45
15	015040	1.016	0.51	0.71	0.87	1.01	1.13	1.60	1.96	2.26
	015055	1.397	0.95	1.35	1.65	1.91	2.14	3.02	3.70	4.27
	015070	1.778	1.55	2.19	2.68	3.09	3.46	4.89	5.99	6.92
	015093	2.362	2.79	3.94	4.83	5.58	6.24	8.82	10.80	12.47
	015125	3.180	4.93	6.98	8.54	9.87	11.00	15.60	19.10	22.06
	015156	3.962	7.68	10.90	13.30	15.40	17.20	24.30	29.75	34.36
	015187	4.750	11.29	15.99	19.59	22.69	25.39	35.89	44.03	50.86
30	030028	0.711	0.25	0.36	0.44	0.51	0.57	0.80	0.98	1.13
	030033	0.838	0.35	0.50	0.61	0.70	0.79	1.11	1.36	1.57
	030040	1.016	0.52	0.73	0.89	1.03	1.15	1.63	2.00	2.31
	030055	1.397	0.98	1.38	1.69	1.95	2.18	3.08	3.78	4.36
	030070	1.780	1.58	2.23	2.74	3.16	3.53	5.00	6.12	7.07
	030093	2.360	2.85	4.03	4.94	5.70	6.37	9.01	11.04	12.74
	030125	3.180	5.04	7.13	8.73	10.10	11.30	15.90	19.51	22.53
	030156	3.960	7.85	11.10	13.60	15.70	17.50	24.80	30.39	35.09
	030187	4.750	11.40	16.10	19.70	22.80	25.50	36.00	44.14	50.97
45	045028	0.711	0.26	0.37	0.45	0.52	0.58	0.82	1.00	1.16
	045033	0.838	0.36	0.51	0.62	0.72	0.80	1.14	1.39	1.61
	045040	1.016	0.53	0.75	0.92	1.06	1.18	1.67	2.05	2.36
	045055	1.397	1.00	1.41	1.73	2.00	2.23	3.16	3.87	4.47
	045070	1.780	1.62	2.29	2.80	3.24	3.62	5.12	6.27	7.24
	045093	2.360	2.92	4.13	5.06	5.84	6.53	9.23	11.31	13.06
	045125	3.180	5.16	7.30	8.94	10.30	11.50	16.30	19.99	23.09
	045156	3.960	8.04	11.40	13.90	16.10	18.00	25.40	31.14	35.96
	045187	4.750	11.70	16.50	20.20	23.40	26.10	36.90	45.23	52.22
60	060028	0.711	0.27	0.38	0.46	0.53	0.60	0.84	1.03	1.19
	060033	0.840	0.37	0.52	0.64	0.74	0.83	1.17	1.43	1.65
	060040	1.016	0.54	0.77	0.94	1.09	1.21	1.72	2.10	2.43
	060055	1.397	1.03	1.45	1.78	2.05	2.30	3.25	3.98	4.59
	060070	1.780	1.66	2.35	2.88	3.33	3.53	5.26	6.44	7.44

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series DS Fan and Needle Jet Disc Nozzle

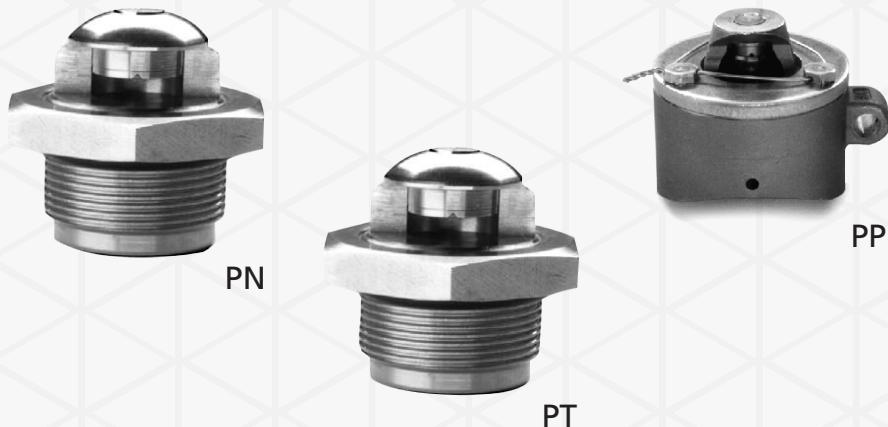
Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Fan/Orifice Number	Equivalent Orifice Diameter (mm)	Pressure kPa (Bars)							
			100	200	300	400	500	1000	1500	2000
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00
60	060093	2.360	3.00	4.24	5.20	6.00	6.71	9.49	11.62	13.41
	060125	3.180	5.30	7.50	9.19	10.60	11.90	16.80	20.50	23.70
	060156	3.960	8.26	11.70	14.30	16.50	18.50	26.10	32.00	36.95
	060187	4.750	12.38	17.51	21.45	24.77	27.69	39.16	47.96	55.38
80	080028	0.711	0.28	0.40	0.49	0.57	0.64	0.90	1.10	1.27
	080033	0.838	0.40	0.56	0.69	0.80	0.89	1.26	1.54	1.78
	080040	1.016	0.57	0.81	0.99	1.14	1.27	1.80	2.21	2.55
	080055	1.397	1.03	1.45	1.78	2.05	2.29	3.24	3.97	4.59
	080070	1.778	1.60	2.26	2.76	3.19	3.57	5.04	6.18	7.13
	080093	2.362	3.42	4.83	5.92	6.84	7.64	10.81	13.24	15.29
	080125	2.173	5.70	8.06	9.87	11.39	12.74	18.02	22.07	25.48
	080156	2.173	9.12	12.89	15.79	18.23	20.38	28.83	35.30	40.77
	080187	2.173	4.23	19.34	23.68	27.35	30.57	43.24	52.96	61.15

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Self Purging Nozzles



PN

PT

PP

Products

- ▶ Series PN Self Purging Nozzle 71
- ▶ Series PT Two Self Purging Nozzle 74
- ▶ Series PP Self Purging Nozzle 77



Self Purging Nozzles

Series PN Self Purging Nozzle

Nozzle Characteristics

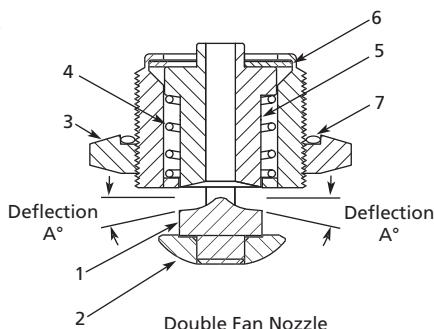
The PN series self purging nozzle is available in a jet, fan, or a double fan configuration that sprays two fan patterns in opposite directions (180° apart). During normal shower operation, water pressure holds a spring loaded piston firmly against the shower button. Nozzle cleaning is easily accomplished by lowering the shower water pressure below 10 psig (20 psig using spring S4-347). The nozzle orifice opens up allowing shower water to flush contaminants from the pipe. During the flushing operation, nozzle flow rates are 3.3 gpm with the standard spring (N6715).

Rebuild Service – Kadant Solutions Division can build any PN series nozzle. Please contact a Kadant Solutions Division customer service representative for details.

Construction

All PN series nozzles are constructed of 316SS. ArresTech coating is offered on the spray button and piston only. The nozzles are designed for use in systems that operate up to 200 psig. Higher operation pressures are available.

- 1 Spray Button
- 2 Shower Nozzle Body
- 3 Check Nut
- 4 Spring
- 5 High-Pressure Piston
- 6 Diaphragm
- 7 O-Ring



Components



Double Fan Shower Nozzle Body (L)

Standard Fan Shower Nozzle Body (R)



Piston

(See table for part number)



Spring

N6715 – 10 psig purge *

S4-347 – 20 psig purge

B41058 – 30 psig purge

* Standard on all complete nozzles.



Diaphragm

B39978 (N6845) - Viton**

** Standard supply



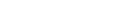
Check Nut

S4-997 (N6759) – 1.125"-20



O-Ring

1158-121-001 (Buna-N)



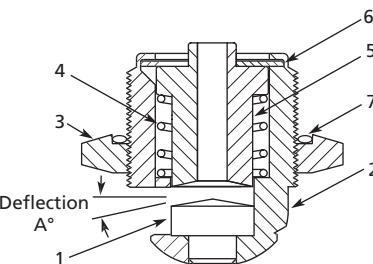
Nozzle Base

316SS – 1.125"-20

C27686GP1 – 2", 2-1/2", 3"

C27686GP2 – 4", 6"

C27686GP3 – 1-1/2"



Single Fan/Jet Nozzle

Self Purging Nozzle Ordering Information					
Nozzle Series	PN	18U	S	V	040090
Connection			Diaphragm Material		Spring Type
Construction Material					

Construction Material	Code	Connection Size/Type	Code
ArresTech Plated 316SS***	A	1.125" – 20	18U
316SS	S	M2X1.5 (C40306G)	M28
***ArresTech plating on spray button and piston only.			
Diaphragm Material	Code	Spring Type	Code
Viton	V	10 psig	None
		20 psig	H
		30 psig	XH

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Series PN Self Purging Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree)*	Fan/Orifice Number	Equivalent Orifice (inch)	Deflection Angle (degree)	Pressure (PSI)								Piston Part Number	
				30	40	60	80	100	125	150	200	316 Stainless Steel	Arrestech Plated 316 Stainless Steel
Jet	000023	0.023	8.5	0.055	0.063	0.077	0.089	0.100	0.112	0.122	0.141	N6803	N6803A
	000037	0.037	8.5	0.141	0.163	0.200	0.231	0.258	0.289	0.316	0.365	N6803	N6803A
	000040	0.040	8.5	0.160	0.190	0.240	0.270	0.300	0.340	0.370	0.420	N6803	N6803A
	000047	0.047	8.5	0.228	0.264	0.323	0.373	0.417	0.466	0.510	0.589	N6803	N6803A
	000087	0.087	8.5	0.790	0.850	1.030	1.200	1.360	1.520	1.670	1.980	N6803	N6803A
	000099	0.099	8.5	1.013	1.169	1.432	1.654	1.849	2.067	2.265	2.615	N6617	N6617A
15	015040	0.040	12	0.195	0.225	0.275	0.318	0.356	0.398	0.436	0.503	N6749	N6749A
	015066	0.066	12	0.526	0.607	0.744	0.859	0.961	1.074	1.176	1.358	N6749	N6749A
25	025085	0.085	12	0.880	1.020	1.240	1.420	1.600	1.790	1.960	2.260	N6617	N6617A
30	030063	0.063	12	0.479	0.554	0.678	0.783	0.875	0.978	1.072	1.238	N6749	N6749A
	030095	0.095	12	1.110	1.270	1.540	1.780	2.010	2.250	2.460	2.830	N6617	N6617A
	030099	0.099	12	1.210	1.400	1.720	1.990	2.240	2.500	2.740	3.110	N6617	N6617A
40	040090	0.090	12	1.030	1.170	1.430	1.650	1.870	2.090	2.290	2.690	N6617	N6617A
	040093	0.093	12	1.110	1.270	1.540	1.780	1.990	2.220	2.440	2.820	N6617	N6617A
	040097	0.097	12	1.190	1.360	1.670	1.930	2.170	2.430	2.660	3.110	N6617	N6617A
	040114	0.114	12	1.670	1.920	2.360	2.720	3.030	3.390	3.710	4.240	N6617	N6617A
	040147	0.147	12	2.730	3.190	3.890	4.490	5.010	5.600	6.140	7.070	N6617	N6617A
45	045104	0.104	12	1.360	1.570	1.930	2.240	2.510	2.810	3.070	3.540	N6617	N6617A
	045131	0.131	12	2.120	2.470	3.010	3.520	3.960	4.430	4.850	5.660	N6617	N6617A
	045166	0.166	12	3.480	4.170	4.920	5.680	6.350	7.100	7.780	8.980	N6617	N6617A
	045182	0.182	12	4.170	4.800	5.870	6.790	7.590	8.490	9.300	10.740	N6617	N6617A
50	050145	0.145	12	2.790	3.230	3.910	4.540	5.080	5.680	6.220	7.210	N6617	N6617A
60	060104	0.104	12	1.410	1.610	1.980	2.300	2.570	2.870	3.150	3.640	N6617	N6617A
	060145	0.145	12	2.710	3.100	3.750	4.380	4.890	5.470	5.990	6.930	N6617	N6617A
	060161	0.161	12	3.270	3.840	4.710	5.460	6.130	6.850	7.510	8.630	N6617	N6617A
80	080083	0.083	12	1.001	1.156	1.416	1.635	1.828	2.044	2.239	2.586	N6617	N6617A
	080107	0.107	5	1.690	1.910	2.340	2.730	3.040	3.390	3.720	4.240	N6617	N6617A
	080131	0.131	12	2.550	2.970	3.540	4.120	4.550	5.100	5.590	6.500	N6617	N6617A
	080145	0.145	12	3.110	3.560	4.410	5.100	5.530	6.180	6.770	7.920	N6617	N6617A
	080168	0.168	12	4.050	4.700	5.780	6.670	7.460	8.340	9.140	10.550	N6617	N6617A
	080194	0.194	12	5.471	6.317	7.737	8.934	9.989	11.168	12.233	14.126	N6617	N6617A
100	100080	0.080	12	0.960	1.140	1.410	1.610	1.820	2.030	2.230	2.550	N6617	N6617A
	100098	0.098	12	1.479	1.708	2.092	2.416	2.701	3.020	3.308	3.820	N6617	N6617A
	100119	0.119	12	2.181	2.519	3.085	3.562	3.983	4.453	4.878	5.632	N6617	N6617A
120	120063	0.063	15	0.747	0.862	1.056	1.219	1.363	1.524	1.670	1.928	N6617	N6617A
	120125	0.125	12	2.960	3.420	4.110	4.800	5.310	5.940	6.500	7.490	N6617	N6617A
130	130091	0.091	12	1.410	1.600	1.950	2.300	2.530	2.830	3.100	3.540	N6617	N6617A
	130147	0.147	12	3.675	4.244	5.198	6.002	6.710	7.502	8.218	9.489	N6617	N6617A
Double 40	D040114	0.114	12	3.310	3.830	4.690	5.410	6.050	6.760	7.410	8.560	N6617	N6617A
Double 80	D080107	0.107	5	3.329	3.844	4.707	5.436	6.077	6.794	7.443	8.594	N6617	N6617A
	D080131	0.131	12	6.020	6.960	8.520	9.840	11.050	12.360	13.540	15.560	N7347	N7347A
	D080145	0.145	12	6.220	7.120	8.820	10.200	11.060	12.360	13.540	15.840	N6617	N6617A

*Minimum spray angle changes with pressure variations.



Series PN Self Purging Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree)*	Fan/Orifice Number	Equivalent Orifice (mm)	Deflection Angle (degree)	Pressure kPa (Bars)								Piston Part Number	
				200	300	400	600	800	1000	1200	1400	316 Stainless Steel	Arrestech Plated 316 Stainless Steel
				2.00	3.00	4.00	6.00	8.00	10.00	12.00	14.00		
Jet	000023	0.58	8.5	0.203	0.249	0.287	0.352	0.406	0.454	0.497	0.537	N6803	N6803A
	000037	0.94	8.5	0.527	0.645	0.745	0.912	1.054	1.178	1.290	1.394	N6803	N6803A
	000040	1.02	8.5	0.596	0.750	0.893	1.079	1.240	1.377	1.495	1.602	N6803	N6803A
	000047	1.19	8.5	0.844	1.034	1.194	1.462	1.689	1.888	2.068	2.234	N6803	N6803A
	000087	2.21	8.5	2.940	3.356	3.834	4.727	5.543	6.216	6.983	7.551	N6803	N6803A
	000099	2.51	8.5	3.756	4.600	5.312	6.506	7.512	8.399	9.200	9.938	N6617	N6617A
15	015040	1.02	8.5	0.725	0.888	1.025	1.256	1.450	1.621	1.776	1.918	N6749	N6749A
	015066	1.68	12	1.967	2.409	2.781	3.406	3.933	4.398	4.817	5.203	N6749	N6749A
25	025085	2.16	12	3.275	4.027	4.615	5.657	6.528	7.295	8.002	8.619	N6617	N6617A
30	030063	1.60	12	1.784	2.185	2.523	3.090	3.568	3.989	4.369	4.720	N6749	N6749A
	030095	2.41	12	4.131	5.014	5.732	7.034	8.205	9.156	10.003	10.793	N6617	N6617A
	030099	2.51	12	4.503	5.527	6.402	7.853	9.117	10.198	11.286	11.861	N6617	N6617A
40	040090	2.29	12	3.834	4.619	5.322	6.625	7.622	8.523	9.474	10.259	N6617	N6617A
	040093	2.36	12	4.131	5.014	5.732	7.034	8.096	9.081	10.003	10.805	N6617	N6617A
	040097	2.46	12	4.429	5.369	6.216	7.630	8.861	9.900	10.984	11.861	N6617	N6617A
	040114	2.90	12	6.216	7.580	8.784	10.719	12.362	13.808	14.948	16.171	N6617	N6617A
	040147	3.73	12	10.161	12.593	14.478	17.716	20.422	22.852	24.951	26.964	N6617	N6617A
45	045104	2.64	12	5.062	6.198	7.183	8.858	10.247	11.426	12.456	13.501	N6617	N6617A
	045131	3.33	12	7.890	9.751	11.203	13.883	16.155	18.051	19.968	21.586	N6617	N6617A
	045166	4.22	12	12.952	16.462	18.312	22.406	25.892	28.956	31.707	34.248	N6617	N6617A
	045182	4.62	12	15.520	18.949	21.848	26.798	30.960	34.614	37.918	40.956	N6617	N6617A
50	050145	3.68	12	10.384	12.751	14.553	17.940	20.713	23.150	25.479	27.498	N6617	N6617A
60	060104	2.64	12	5.248	6.356	7.369	10.942	10.466	11.724	12.834	13.882	N6617	N6617A
	060145	3.68	12	10.086	12.238	13.957	17.307	19.947	22.294	24.460	26.430	N6617	N6617A
	060161	4.09	12	12.171	15.159	17.530	21.550	24.980	27.951	30.424	32.913	N6617	N6617A
80	080083	2.11	12	3.734	4.573	5.281	6.467	7.468	8.349	9.146	9.879	N6617	N6617A
	080107	2.72	5	6.290	7.540	8.709	10.756	12.362	13.845	14.948	16.171	N6617	N6617A
	080131	3.33	12	9.491	11.725	13.176	16.116	18.598	20.805	22.950	24.790	N6617	N6617A
	080145	3.68	12	11.575	14.054	16.414	20.135	22.537	25.197	27.970	30.205	N6617	N6617A
	080168	4.27	12	15.074	18.554	21.513	26.351	30.413	34.018	37.256	40.236	N6617	N6617A
	080194	4.93	12	15.292	18.729	21.626	26.486	30.584	34.193	37.457	40.458	N6617	N6617A
100	100080	2.03	12	3.573	4.500	5.248	6.364	7.403	8.300	8.984	9.725	N6617	N6617A
	100098	2.49	12	5.510	6.749	7.793	9.544	11.021	12.322	13.498	14.579	N6617	N6617A
	100119	3.02	12	8.106	9.928	11.463	14.040	16.212	18.125	19.855	21.446	N6617	N6617A
120	120063	1.60	15	2.778	3.403	3.929	4.812	5.557	6.213	6.806	7.351	N6617	N6617A
	120125	3.18	12	11.017	13.501	15.297	18.944	21.661	24.192	26.461	28.565	N6617	N6617A
130	130091	2.31	12	5.248	6.316	7.258	9.081	10.320	11.538	12.456	13.501	N6617	N6617A
	130147	3.73	12	13.652	16.721	19.307	23.646	27.304	30.527	33.441	36.120	N6617	N6617A
Double 40	D040114	2.90	12	12.431	15.159	17.567	21.438	24.725	27.616	29.896	32.341	N6617	N6617A
Double 80	D080107	2.72	5	6.290	7.540	8.709	10.756	12.362	13.845	14.948	16.171	N6617	N6617A
	D080131	3.33	12	9.261	11.293	13.088	15.971	18.420	20.574	22.272	24.094	N7347	N7347A
	D080145	5.44	15	23.150	28.107	32.827	40.271	45.073	50.394	55.941	60.411	N6617	N6617A

*Minimum spray angle changes with pressure variations.

Self Purging Nozzles

Series PT Two Self Purging Nozzle



Nozzle Characteristics

The PT two series self purging nozzle is an improved version of the PN series nozzle. It's available in a jet, fan, or a double fan configuration that sprays two fan patterns in opposite directions (180° apart). During normal shower operation, water pressure holds a spring loaded piston firmly against the shower button. Nozzle cleaning is easily accomplished by lowering the shower water pressure below 20 psig. The nozzle orifice will open up allowing shower water to flush contaminants from the pipe. During the flushing operation, nozzle flow rates are 3.13 gpm.

Rebuild Service – Kadant Solutions Division can build any PN series nozzle. Please contact a Kadant Solutions Division customer service representative for details.

Construction

All PT series nozzles are constructed of 316SS. ArresTech coating is offered on the spray button and piston only. The nozzles are designed for use in systems that operate up to 200 psig. Higher operation pressures are available.

Components



Double Fan Shower Nozzle Body (L)

Standard Fan Shower Nozzle Body (R)



Piston

B-28059 – Piston

A-25941 – Seal, U-Cup (Nitroxile ELF)



Spring

A-25943



Diaphragm

B39978 (N6845) – Viton*

* Standard supply



Check Nut

S4-997 (N6759) – 1.125"-20



O-Ring-

1158-121-001 (Buna-N)

Nozzle Base

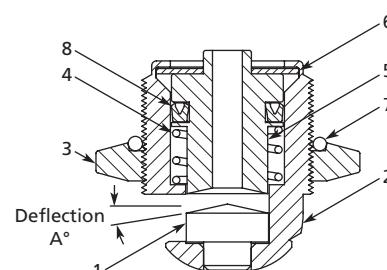
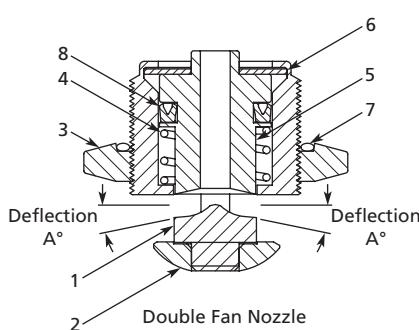
316SS – 1.125"-20

C27686GP1 – 2", 2-12", 3"

C27686GP2 – 4", 6"

C27686GP3 – 1-1/2"

- 1 Spray Button
- 2 Shower Nozzle Body
- 3 Check Nut
- 4 Spring
- 5 High-Pressure Piston
- 6 Diaphragm
- 7 O-Ring
- 8 U-Cup Seal



Single Fan/Jet Nozzle

Self Purging Nozzle Ordering Information

Nozzle Series	PT	18U	S	V	040090	Fan/Orifice Number
Connection						
Construction Material						

Construction Material	Code
ArresTech Plated 316SS**	A
316SS	S

**ArresTech plating on spray button and piston only.

Connection Size/Type	Code
1.125" – 20	18U

Diaphragm Material	Code
Viton	V

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series PT Self Purging Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree)*	Fan/Orifice Number	Equivalent Orifice (inch)	Deflection Angle (degree)	Pressure (PSI)							
				30	40	60	80	100	125	150	200
Jet	000023	0.023	8.5	0.055	0.063	0.077	0.089	0.100	0.112	0.122	0.141
	000037	0.037	8.5	0.141	0.163	0.200	0.231	0.258	0.289	0.316	0.365
	000040	0.040	8.5	0.160	0.190	0.240	0.270	0.300	0.340	0.370	0.420
	000047	0.047	8.5	0.228	0.264	0.323	0.373	0.417	0.466	0.510	0.589
	000087	0.087	8.5	0.790	0.850	1.030	1.200	1.360	1.520	1.670	1.980
	000099	0.099	8.5	1.013	1.169	1.432	1.654	1.849	2.067	2.265	2.615
15	015040	0.040	12	0.190	0.220	0.280	0.320	0.360	0.400	0.440	0.500
	015066	0.066	12	0.526	0.607	0.744	0.859	0.961	1.074	1.176	1.358
25	025085	0.085	12	0.880	1.020	1.240	1.420	1.600	1.790	1.960	2.260
30	030063	0.063	12	0.479	0.554	0.678	0.783	0.875	0.978	1.072	1.238
	030095	0.095	12	1.110	1.270	1.540	1.780	2.010	2.250	2.460	2.830
	030099	0.099	12	1.210	1.400	1.720	1.990	2.240	2.500	2.740	3.110
40	040090	0.090	12	1.030	1.170	1.430	1.650	1.870	2.090	2.290	2.690
	040093	0.093	12	1.110	1.270	1.540	1.780	1.990	2.220	2.440	2.620
	040097	0.097	12	1.190	1.360	1.670	1.930	2.170	2.430	2.660	3.110
	040114	0.114	12	1.670	1.920	2.360	2.720	3.030	3.390	3.710	4.240
	040147	0.147	12	2.730	3.190	3.890	4.490	5.010	5.600	6.140	7.070
45	045104	0.104	12	1.360	1.570	1.930	2.240	2.510	2.810	3.070	3.540
	045131	0.131	12	2.120	2.470	3.010	3.520	3.960	4.430	4.850	5.660
	045166	0.166	12	3.480	4.170	4.920	5.680	6.350	7.100	7.780	8.980
	045182	0.182	12	4.170	4.800	5.870	6.790	7.590	8.490	9.300	10.740
50	050145	0.145	12	2.790	3.230	3.910	4.540	5.080	5.680	6.220	7.210
60	060094	0.094	12	1.107	1.278	1.565	1.807	2.020	2.258	2.474	2.857
	060104	0.104	12	1.410	1.610	1.980	2.300	2.570	2.870	3.150	3.640
	060145	0.145	12	2.710	3.100	3.750	4.380	4.890	5.470	5.990	6.930
	060161	0.161	12	3.270	3.840	4.710	5.460	6.130	6.850	7.510	8.630
80	080083	0.083	12	1.001	1.156	1.416	1.635	1.828	2.044	2.239	2.586
	080107	0.107	5	1.690	1.910	2.340	2.730	3.040	3.390	3.720	4.240
	080131	0.131	12	2.550	2.970	3.540	4.120	4.550	5.100	5.590	6.500
	080145	0.145	12	3.110	3.560	4.410	5.100	5.530	6.180	6.770	7.920
	080168	0.168	12	4.050	4.700	5.780	6.670	7.460	8.340	9.140	10.550
	080194	0.194	12	5.471	6.317	7.737	8.934	9.989	11.168	12.233	14.126
100	100080	0.080	12	0.960	1.140	1.410	1.610	1.820	2.030	2.230	2.550
	100098	0.098	12	1.479	1.708	2.092	2.416	2.701	3.020	3.308	3.820
	100119	0.119	12	2.181	2.519	3.085	3.562	3.983	4.453	4.878	5.632
120	120063	0.063	15	0.747	0.862	1.056	1.219	1.363	1.524	1.670	1.928
	120125	0.125	12	2.960	3.420	4.110	4.800	5.310	5.940	6.500	7.490
130	130091	0.091	12	1.410	1.600	1.950	2.300	2.530	2.830	3.100	3.540
	130147	0.147	12	3.675	4.244	5.198	6.002	6.710	7.502	8.218	9.489
Double 40	D040114	0.114	12	3.310	3.830	4.690	5.410	6.050	6.760	7.410	8.560
Double 80	D080107	0.107	5	3.329	3.844	4.707	5.436	6.077	6.794	7.443	8.594
	D080131	0.131	12	5.100	5.940	7.080	8.240	9.100	10.200	11.180	13.000
	D080145	0.145	12	6.220	7.120	8.820	10.200	11.060	12.360	13.540	15.840

*Minimum spray angle changes with pressure variations.

Series PT Self Purging Nozzle



Flow Rate (Liters per Minute)

Fan Angle (degree)*	Fan/Orifice Number	Equivalent Orifice (mm)	Deflection Angle (degree)	Pressure kPa (Bars)							
				200	300	400	600	800	1000	1200	1400
				2.00	3.00	4.00	6.00	8.00	10.00	12.00	14.00
Jet	000023	0.58	8.5	0.203	0.249	0.287	0.352	0.406	0.454	0.497	0.537
	000037	0.94	8.5	0.527	0.645	0.745	0.912	1.054	1.178	1.290	1.394
	000040	1.02	8.5	0.596	0.750	0.893	1.079	1.240	1.377	1.495	1.602
	000047	1.19	8.5	0.844	1.034	1.194	1.462	1.689	1.888	2.068	2.234
	000087	2.21	8.5	2.940	3.356	3.834	4.727	5.543	6.216	6.983	7.551
	000099	2.51	8.5	3.756	4.600	5.312	6.506	7.512	8.399	9.200	9.938
15	015040	1.02	8.5	0.725	0.888	1.025	1.256	1.450	1.621	1.776	1.918
	015066	1.68	12	1.967	2.409	2.781	3.406	3.933	4.398	4.817	5.203
25	025085	2.16	12	3.275	4.027	4.615	5.657	6.528	7.295	8.002	8.619
30	030063	1.60	12	1.784	2.185	2.523	3.090	3.568	3.989	4.369	4.720
	030095	2.41	12	4.131	5.014	5.732	7.034	8.205	9.156	10.003	10.793
	030099	2.51	12	4.503	5.527	6.402	7.853	9.117	10.198	11.286	11.861
40	040090	2.29	12	3.834	4.619	5.322	6.625	7.622	8.523	9.474	10.259
	040093	2.36	12	4.131	5.014	5.732	7.034	8.096	9.081	10.003	10.805
	040097	2.46	12	4.429	5.369	6.216	7.630	8.861	9.900	10.984	11.861
	040114	2.90	12	6.216	7.580	8.784	10.719	12.362	13.808	14.948	16.171
	040147	3.73	12	10.161	12.593	14.478	17.716	20.422	22.852	24.951	26.964
45	045104	2.64	12	5.062	6.198	7.183	8.858	10.247	11.426	12.456	13.501
	045131	3.33	12	7.890	9.751	11.203	13.883	16.155	18.051	19.968	21.586
	045166	4.22	12	12.952	16.462	18.312	22.406	25.892	28.956	31.707	34.248
	045182	4.62	12	15.520	18.949	21.848	26.798	30.960	34.614	37.918	40.956
50	050145	3.68	12	10.384	12.751	14.553	17.940	20.713	23.150	25.479	27.498
60	060094	2.39	12	4.1172	5.0426	5.8226	7.1313	8.2345	9.20641	10.0851	10.8932
	060104	2.64	12	5.248	6.356	7.369	10.942	10.466	11.724	12.834	13.882
	060145	3.68	12	10.086	12.238	13.957	17.307	19.947	22.294	24.460	26.430
	060161	4.09	12	12.171	15.159	17.530	21.550	24.980	27.951	30.424	32.913
80	080083	2.11	12	3.734	4.573	5.281	6.467	7.468	8.349	9.146	9.879
	080107	2.72	5	6.290	7.540	8.709	10.756	12.362	13.845	14.948	16.171
	080131	3.33	12	9.491	11.725	13.176	16.116	18.598	20.805	22.950	24.790
	080145	3.68	12	11.575	14.054	16.414	20.135	22.537	25.197	27.970	30.205
	080168	4.27	12	15.074	18.554	21.513	26.351	30.413	34.018	37.256	40.236
	080194	4.93	12	15.292	18.729	21.626	26.486	30.584	34.193	37.457	40.458
100	100080	2.03	12	3.573	4.500	5.248	6.364	7.403	8.300	8.984	9.725
	100098	2.49	12	5.510	6.749	7.793	9.544	11.021	12.322	13.498	14.579
	100119	3.02	12	8.106	9.928	11.463	14.040	16.212	18.125	19.855	21.446
120	120063	1.60	15	2.778	3.403	3.929	4.812	5.557	6.213	6.806	7.351
	120125	3.18	12	11.017	13.501	15.297	18.944	21.661	24.192	26.461	28.565
130	130091	2.31	12	5.248	6.316	7.258	9.081	10.320	11.538	12.456	13.501
	130147	3.73	12	13.652	16.721	19.307	23.646	27.304	30.527	33.441	36.120
Double 40	D040114	2.90	12	12.431	15.159	17.567	21.438	24.725	27.616	29.896	32.341
Double 80	D080107	2.72	5	6.290	7.540	8.709	10.756	12.362	13.845	14.948	16.171
	D080131	3.33	12	18.982	23.449	26.351	32.232	37.196	41.611	45.900	49.580
	D080145	5.44	12	23.150	28.107	32.827	40.271	45.073	50.394	55.941	60.411

*Minimum spray angle changes with pressure variations.



Self Purging Nozzles

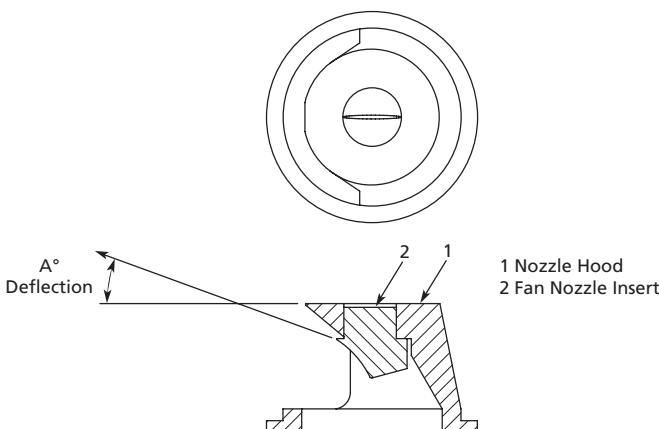
Series PP Self Purging Nozzle

Nozzle Characteristics

The PP series self purging nozzle is available in fan or jet spray patterns. It's designed to allow the shower to purge contaminants from the nozzle orifice if it should become plugged. In operation, the shower pressure holds the piston against an anvil designed to produce the desired spray pattern. When purging is required, an air signal is applied to the double piston on the side opposite the water. The piston is forced away from the anvil allowing water pressure to clean the orifice. When the air signal is removed, the water pressure again forces the piston against the anvil for normal operation. Piston return is assisted by a Posi-Lift spring.

Construction

All PP series nozzles are constructed of stainless steel. The piston and hood assembly are available with ArresTech plating as an option. The jet and fan nozzles are designed for use in systems that operate up to 1000 and 300 psig respectively.



Components



Screws (3)
42-205-001



Lacing Wire
42-206-001



Washer, Flange
42-102-002



Hood Assembly (Jet or Fan)
Includes nozzle hood and fan insert



Piston, Double
(see table)
Seal, Piston
42-103-001
Seal, Lip Upper
42-112-001
Seal, Lip Lower
42-113-001



Spring, Posi-Lift
B-24867



Base**
Contact Factory
** Welded to shower — not normally replaced.

Self Purging Nozzle Ordering Information			
Nozzle Series	PP	A	000040 Fan/Orifice Number

Construction Material	Code
ArresTech Plated 316SS ***	A
316SS	S

***ArresTech plating on spray button and piston only.

Series PP Self Purging Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree)*	Nozzle Number	Equiv. Orifice (inch)	Insert and Hood Assembly	Piston	Deflection Angle (degree)	Pressure (PSI)															
						20	40	60	80	100	120	140	160	180	200	250	300	400	500	600	700
Jet	000040	0.040	B10738	42-107-001	26	0.15	0.23	0.28	0.32	0.36	0.39	0.42	0.45	0.48	0.50	0.56	0.59	0.68	0.75	0.86	0.95
	000055	0.055	B10955	42-108-001	26	0.25	0.35	0.43	0.49	0.55	0.60	0.65	0.70	0.74	0.78	0.87	0.95	1.10	1.23	1.35	1.46
15	015040	0.040	B26144	42-108-001	22	0.16	0.22	0.27	0.32	0.35	0.39	0.42	0.45	0.47	0.50	0.56	0.61				
	015043	0.043	B22710	42-108-001	22.5	0.18	0.26	0.32	0.37	0.41	0.45	0.49	0.52	0.55	0.58	0.66	0.73				
30	030094	0.094	B10747	42-108-001	36	0.85	1.22	1.51	1.76	1.97	2.17	2.35	2.52	2.68	2.83	3.19	3.51				
	030133	0.133	B10753	42-108-001	24	1.77	2.50	3.06	3.54	3.95	4.33	4.68	5.00	5.30	5.59	6.25	6.85				
	030157	0.157	B10754	42-108-001	24	2.47	3.50	4.29	4.95	5.53	6.06	6.55	7.00	7.42	7.83	8.75	9.59				
40	040094	0.094	B10739	42-108-001	34	0.85	1.20	1.47	1.70	1.90	2.09	2.26	2.41	2.56	2.70	3.02	3.31				
45	045050	0.050	B10748	42-108-001	24	0.27	0.40	0.50	0.58	0.66	0.72	0.79	0.85	0.90	0.96	1.08	1.19				
	045060	0.060	B24734	42-108-001	16	0.37	0.52	0.64	0.73	0.82	0.90	0.97	1.04	1.10	1.16	1.30	1.42				
	045109	0.109	B10746	42-108-001	38	1.03	1.44	1.76	2.02	2.26	2.47	2.66	2.84	3.01	3.17	3.54	3.86				
	045125	0.125	B10742	42-108-001	36	1.40	2.02	2.50	2.91	3.27	3.61	3.91	4.20	4.47	4.73	5.32	5.86				
	045131	0.131	B10755	42-108-001	24	1.77	2.50	3.06	3.54	3.95	4.33	4.68	5.00	5.30	5.59	6.25	6.85				
	045155	0.155	B10756	42-108-001	24	2.47	3.50	4.29	4.95	5.53	6.06	6.55	7.00	7.42	7.83	8.75	9.59				
60	060056	0.056	B10750	42-108-001	15	0.34	0.48	0.58	0.67	0.75	0.82	0.89	0.95	1.01	1.06	1.19	1.30				
	060080	0.080	B10743	42-108-001	20	0.72	1.00	1.22	1.39	1.55	1.68	1.81	1.93	2.04	2.14	2.38	2.59				
	060098	0.098	B18630	42-108-001	15	1.01	1.42	1.74	2.01	2.25	2.46	2.66	2.84	3.02	3.18	3.55	3.89				
	060109	0.109	B10757	42-108-001	15	1.35	1.90	2.25	2.60	2.93	3.20	3.45	3.70	3.90	4.10	4.56	5.00				
77	077070	0.070	B10758	42-108-001	20	0.80	0.95	1.16	1.30	1.42	1.56	1.68	1.80	1.91	2.01	2.25	2.46				
90	090062	0.062	B31608	42-108-001	14	0.53	0.72	0.88	1.01	1.13	1.24	1.33	1.41	1.50	1.58	1.76	1.93				
	090078	0.078	B10744	42-108-001	13	0.87	1.21	1.46	1.67	1.86	2.02	2.18	2.32	2.45	2.58	2.86	3.12				
	090099	0.099	B25741	42-108-001	24	1.24	1.75	2.14	2.47	2.76	3.03	3.27	3.50	3.71	3.91	4.37	4.79				
100	100078	0.078	B10740	42-108-001	14	1.00	1.41	1.72	2.00	2.21	2.40	2.61	2.80	2.95	3.10	3.47	3.80				
	100099	0.099	B24546	42-108-001	14	1.24	1.75	2.14	2.47	2.76	3.03	3.27	3.50	3.71	3.91	4.37	4.79				
120	120080	0.080	B10745	42-108-001	4	1.02	1.41	1.71	1.96	2.17	2.37	2.54	2.71	2.86	3.00	3.34	3.64				
Flow at Purge						4.00	5.44	6.50	7.40	8.17	8.86	9.49	10.08	N/R	N/R	N/R	N/R				

*Minimum spray angle changes with pressure variations.



Series PP Self Purging Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree)*	Nozzle Number	Equiv. Orifice (mm)	Insert and Hood Assembly	Piston	Deflection Angle (degree)	Pressure kPa (Bar)																	
						100	200	300	400	500	600	700	800	900	1000	1500	2000	2500	3000	3500	4000	5000	
						1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	50.00	
Jet	000040	1.016	B10738	42-107-001	26	0.48	0.74	0.91	1.04	1.14	1.27	1.37	1.44	1.53	1.61	1.97	2.20	2.46	2.68	2.86	3.20	3.66	
	000055	1.397	B10955	42-107-001	26	0.79	1.12	1.37	1.59	1.77	1.94	2.10	2.24	2.38	2.51	3.07	3.55	3.97	4.34	4.69	5.02	5.61	
15	015040	1.016	B26144	42-108-001	22	0.51	0.72	0.88	1.02	1.14	1.25	1.35	1.44	1.53	1.61	1.97	2.28	2.55					
	015043	1.092	B22710	42-108-001	22.5	0.58	0.84	1.03	1.19	1.33	1.46	1.56	1.67	1.79	1.89	2.29	2.72	3.04					
30	030094	2.388	B10747	42-108-001	36	2.74	3.93	4.82	5.62	6.34	6.96	7.51	8.06	8.59	9.08	11.2	13.1	14.6					
	030133	3.378	B10753	42-108-001	24	5.70	8.06	9.87	11.4	12.7	14.0	15.1	16.1	17.1	18.0	22.1	25.5	28.5					
	030157	3.988	B10754	42-108-001	24	7.98	11.3	13.8	16.0	17.8	19.5	21.1	22.6	23.9	25.2	30.9	35.7	39.9					
40	040094	2.388	B10739	42-108-001	34	2.75	3.88	4.76	5.47	6.14	6.73	7.26	7.77	8.26	8.68	10.7	12.3	13.8					
45	045050	1.270	B10748	42-108-001	24	0.87	1.29	1.58	1.86	2.09	2.33	2.51	2.69	2.89	3.06	3.79	4.43	4.95					
	045060	1.524	B24734	42-108-001	16	1.18	1.67	2.05	2.37	2.65	2.90	3.13	3.35	3.55	3.75	4.59	5.30	5.92					
	045109	2.769	B10746	42-108-001	38	3.32	4.64	5.68	6.55	7.27	7.97	8.60	9.20	9.72	10.2	12.5	14.4	16.1					
	045125	3.175	B10742	42-108-001	36	4.51	6.51	7.97	9.30	10.5	11.5	12.5	13.4	14.3	15.1	18.7	21.8	24.4					
	045131	3.327	B10755	42-108-001	24	5.70	8.06	9.87	11.4	12.7	14.0	15.1	16.1	17.1	18.0	22.1	25.5	28.5					
	045155	3.937	B10756	42-108-001	24	7.98	11.3	13.8	16.0	17.8	19.5	21.1	22.6	23.9	25.2	30.9	35.7	39.9					
60	060056	1.422	B10750	42-108-001	15	1.08	1.53	1.88	2.17	2.42	2.66	2.87	3.07	3.25	3.43	4.20	4.85	5.42					
	060080	2.032	B10743	42-108-001	20	2.32	3.22	3.95	4.54	5.01	5.47	5.91	6.25	6.62	6.96	8.45	9.64	10.8					
	060098	2.489	B18630	42-108-001	15	3.24	4.58	5.61	6.48	7.24	7.94	8.57	9.16	9.72	10.2	12.5	14.5	16.2					
	060109	2.769	B10757	42-108-001	15	4.35	6.12	7.50	8.37	9.37	10.3	11.2	11.9	12.6	13.3	16.2	18.6	20.8					
77	077070	1.778	B10758	42-108-001	20	2.58	3.06	3.75	4.32	4.68	5.01	5.42	5.79	6.14	6.47	7.93	9.15	10.2					
90	090062	1.575	B31608	42-108-001	14	1.71	2.42	2.84	3.27	3.64	3.99	4.31	4.61	4.86	5.12	6.24	7.18	8.03					
	090078	1.981	B10744	42-108-001	13	2.80	3.90	4.78	5.43	6.02	6.57	7.09	7.52	7.97	8.36	10.2	11.6	13.0					
	090099	2.515	B25741	42-108-001	24	3.98	5.63	6.90	7.97	8.91	9.76	10.5	11.3	12.0	12.6	15.4	17.8	19.9					
100	100078	1.981	B10740	42-108-001	14	3.22	4.54	5.57	6.40	7.21	7.80	8.43	8.93	9.54	10.1	12.2	14.1	15.8					
	100099	2.515	B24546	42-108-001	14	3.98	5.63	6.90	7.97	8.91	9.76	10.5	11.3	12.0	12.6	15.4	17.8	19.9					
120	120080	2.032	B10745	42-108-001	4	3.29	4.54	5.57	6.36	7.06	7.65	8.26	8.83	9.28	9.77	11.8	13.5	15.1					
Flow at Purge						12.90	17.50	21.50	24.20	26.70	28.80	31.20	33.00	34.70	N/R	N/R	N/R	N/R					

*Minimum spray angle changes with pressure variations.

Trim Squirt Nozzles



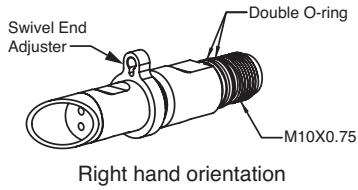
Products

- ▶ TG and TT Trim Squirt Nozzle 81
- ▶ TS Trim Squirt Needle Jet Nozzle 82
- ▶ VersaTrim™ System 87

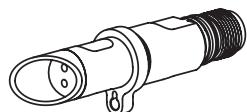


Trim Squirt Nozzles

Series TG and TT Trim Squirt Nozzle

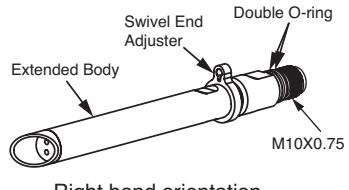


Right hand orientation

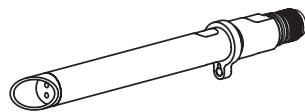


Left hand orientation

Short with drip guard and adjusting tab

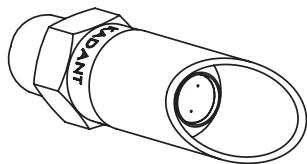


Right hand orientation

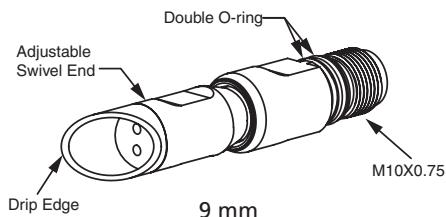


Left hand orientation

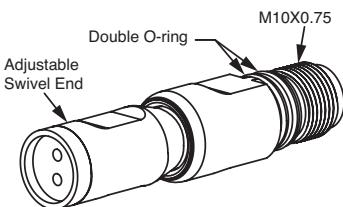
Long with drip guard and adjusting tab



Non-swivel with drip guard



Swivel without adjusting tab



Swivel without adjusting tab and no drip guard

TG and TT Trim Squirt Nozzle Ordering Information					
TT	10M	R	LH	S	005005
Nozzle Series	Thread Size	Insert Material	Option	Construction	*Orifice Size (Inch)

* Orifice size single or dual

Nozzle Series	Code
Metric and British Threads	TT
Standard US Threads	TG
Thread Size	Code
1/4" BSPT	1/4
M10 X 0.75	10M
1/8" MNPT	1/8

Insert Material	Code
Ruby	R
Sapphire	S

Construction Material	Code
316SS	S
Arrestech	A

Option	Code
Left Hand Adjusting Tab	LH
Right Hand Adjusting Tab	RH
Long	L
Short	S
Swivel No Tab	NS
Swivel With Tab	WS
No Swivel and No Tab	NST

Optional Adapters	
A30591G02	- 0.375" NPT to M10 X 0.75 316SS with 50 Mesh Screen (G01 without Screen)
A31647G02	- 0.375" BSPT to M10 X 0.75 316SS with 50 Mesh Screen (G01 without Screen)
B29291	- 3/8" to 1/8" NPT Brass with 50 Mesh Screen
B36231	- 3/8" to 1/8" NPT 316 Arrestech 150 with 50 Mesh Screen
B37584G01, 02, 03	- 3/8" to 1/8" BSPT Arrestech 150 (80, 100, and 150 Mesh)
KSD007709	- 9/16" to 1/8" NPT 316SS with 50 Mesh Screen

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Trim Squirt Nozzles Tab](#)

Trim Squirt Nozzles

Series TS Trim Squirt Needle Jet Nozzle

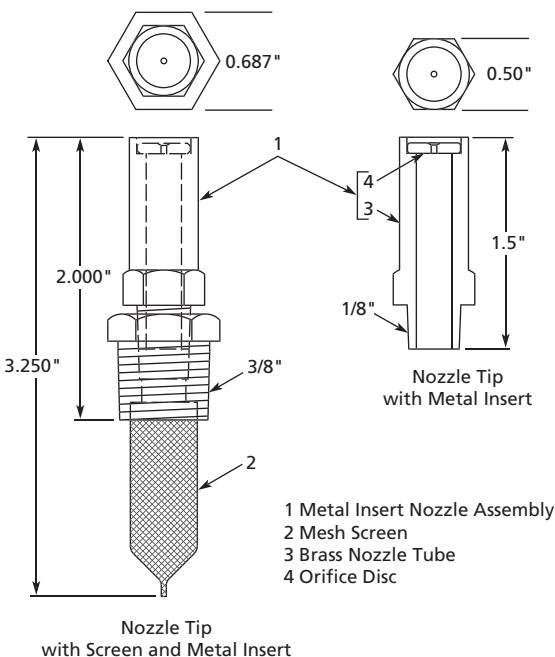


Nozzle Characteristics

The TS Trim Squirt needle jet nozzle is available with 316SS, Duracerm ceramic, ruby, or sapphire insert materials and is designed to deliver one, two, or three solid streams of water from a single nozzle at a wide range of pressures. Ruby and sapphire inserts have excellent erosion resistance to liquid flow, maximizing nozzle life. Duracerm ceramic is one of the toughest shower nozzle materials and is good for withstanding thermal shock. The nozzle tip can be purchased alone or as an assembly with a 50 mesh stainless steel screen.

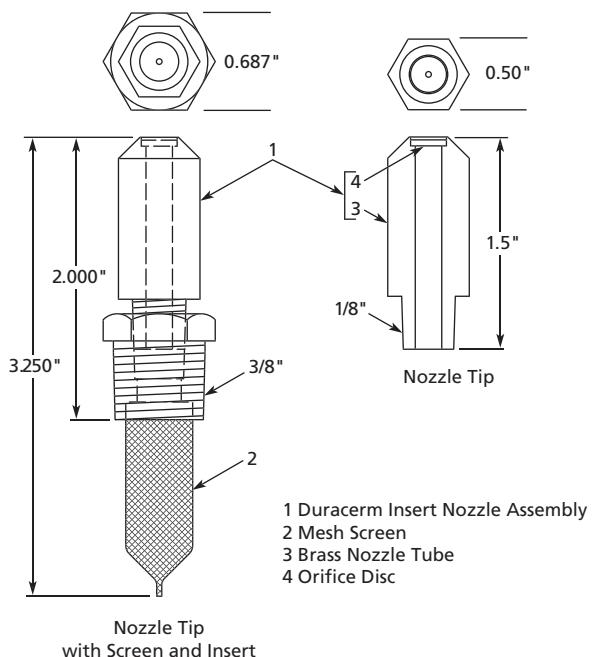
Construction

All TS series nozzle bodies are made of brass or optional ArresTech plated 316SS. The option screen is made of 316SS and the screen holder is brass. The nozzles are designed for use in systems that operate up to 1000 psig.



Components

Nozzle Tip, Duracerm (see table)	Nozzle Tip, with Screen, Stainless Steel (see table)	Nozzle Tip, Stainless Steel (see table)
Nozzle Tip with Screen, Duracerm (see table)	Brass Screen Holder and Stainless Steel 50 Mesh Replacement Screen B29291 – (3/8 NPT M x 1/8 NPT F)	ArresTech Plated 316SS Screen Holder and Stainless Steel Replacement Screen B36231 – (3/8 NPT M x 1/8 NPT F)



Trim Squirt Nozzle Ordering Information					
Nozzle Series	TS	1/8	R	N	B 005

Connection Insert Material Option Construction Material Orifice Number

Option	Code	Connection Size/Type	Code
Nozzle Tip Only. No Screen	N	1/8" NPT without Filter	1/8
Includes 50 Mesh Filter	F	3/8" NPT with Filter	3/8
		3/8" BSPT with Filter	6B
		1/8" BSPT without Filter	2B
Construction Material	Code	Insert Material	Code
Brass	B	Ruby	R
ArresTech Plated 316SS*	A	Sapphire	P
Duracerm	D	Duracerm	D
316SS	S	316SS	S

Please see page 4 for more complete ArresTech information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series Trim Squirt Nozzle

Flow Rate (Gallons per Minute)

Duracerm	Sapphire/ Ruby	316SS	Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)									
					20	40	60	80	100	200	400	600	800	1000
	X		005	0.005	0.002	0.003	0.004	0.004	0.005	0.006	0.009	0.011	0.013	0.014
	X		005005	0.005 x 0.005	0.004	0.006	0.007	0.008	0.009	0.013	0.018	0.022	0.026	0.029
	X		008	0.008	0.005	0.008	0.009	0.011	0.012	0.017	0.024	0.029	0.033	0.037
	X		008008	0.008 x 0.008	0.010	0.015	0.018	0.021	0.023	0.033	0.047	0.057	0.066	0.074
	X	X	010	0.010	0.008	0.012	0.014	0.016	0.018	0.026	0.036	0.045	0.051	0.058
	X		010010	0.010 x 0.010	0.016	0.023	0.028	0.033	0.036	0.051	0.073	0.089	0.103	0.115
		X	012	0.012	0.012	0.017	0.020	0.023	0.026	0.037	0.052	0.064	0.074	0.083
		X	012012	0.012 x 0.012	0.023	0.033	0.041	0.047	0.052	0.074	0.105	0.129	0.148	0.166
		X	012012012	0.012 x 0.012 x 0.012	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035
	X		013013	0.013 x 0.013	0.027	0.038	0.047	0.054	0.061	0.086	0.120	0.150	0.170	0.019
		X	014	0.014	0.016	0.023	0.028	0.032	0.036	0.050	0.071	0.087	0.101	0.113
		X	015	0.015	0.018	0.026	0.032	0.037	0.041	0.058	0.082	0.100	0.116	0.130
		X	015015	0.015 x 0.015	0.037	0.052	0.063	0.073	0.082	0.116	0.164	0.201	0.232	0.259
		X	015015015	0.015 x 0.015 x 0.015	0.055	0.078	0.095	0.110	0.123	0.174	0.246	0.301	0.348	0.389
	X		016	0.016	0.021	0.029	0.036	0.041	0.046	0.065	0.090	0.115	0.130	0.145
	X		016016	0.016 x 0.016	0.041	0.058	0.071	0.082	0.092	0.130	0.180	0.230	0.260	0.290
	X		018	0.018	0.026	0.037	0.046	0.053	0.059	0.083	0.118	0.144	0.167	0.186
		X	018018	0.018 x 0.018	0.053	0.075	0.091	0.105	0.118	0.167	0.236	0.289	0.333	0.373
		X	020	0.020	0.033	0.046	0.056	0.065	0.073	0.103	0.146	0.178	0.206	0.230
		X	020015	0.020 x 0.015	0.051	0.072	0.088	0.102	0.114	0.161	0.227	0.278	0.322	0.360
		X	020020	0.020 x 0.020	0.065	0.092	0.113	0.130	0.146	0.206	0.291	0.356	0.412	0.460
		X	020040	0.020 x 0.040	0.163	0.230	0.282	0.325	0.364	0.514	0.728	0.891	1.029	1.150
		X	023	0.023	0.043	0.061	0.075	0.086	0.096	0.136	0.192	0.236	0.272	0.304
		X	023023	0.023 x 0.023	0.086	0.122	0.149	0.172	0.192	0.272	0.385	0.471	0.544	0.609
		X	024	0.024	0.047	0.066	0.081	0.094	0.105	0.148	0.210	0.257	0.297	0.332
	X		024024	0.024 x 0.024	0.094	0.133	0.163	0.188	0.210	0.297	0.420	0.514	0.594	0.664
		X	025	0.025	0.051	0.072	0.088	0.102	0.114	0.161	0.227	0.278	0.322	0.360
		X	025020	0.025 x 0.020	0.083	0.118	0.144	0.167	0.186	0.264	0.373	0.457	0.527	0.590
		X	025025	0.025 x 0.025	0.102	0.144	0.176	0.203	0.227	0.322	0.455	0.557	0.643	0.719
		X	025020015	0.025 x 0.020 x 0.015	0.099	0.141	0.173	0.199	0.223					
	X	X	028	0.028	0.064	0.090	0.110	0.128	0.143	0.202	0.285	0.349	0.403	0.451
	X		028028	0.028 X 0.028	0.128	0.180	0.221	0.255	0.285	0.403	0.570	0.699	0.807	0.902
		X	030	0.030	0.073	0.104	0.127	0.146	0.164	0.232	0.327	0.401	0.463	0.518
		X	030030	0.030 x 0.030	0.146	0.207	0.254	0.293	0.327	0.463	0.655	0.802	0.926	1.035
		X	032	0.032	0.083	0.118	0.145	0.167	0.187	0.264	0.373	0.457	0.528	0.590
		X	033	0.033	0.089	0.125	0.153	0.177	0.198	0.280	0.396	0.485	0.560	0.626
	X		033033	0.033 x 0.033	0.177	0.251	0.307	0.354	0.396					
		X	035035	0.035 X 0.035	0.199	0.281	0.345	0.398	0.445	0.629	0.890	1.090	1.259	1.407
		X	036	0.036	0.106	0.149	0.183	0.211	0.236	0.334	0.472	0.579	0.668	0.747
X	X	X	040	0.040	0.130	0.184	0.225	0.260	0.291	0.412	0.582	0.713	0.823	0.920
	X		040040	0.040 x 0.040	0.260	0.368	0.451	0.521	0.582					
		X	045	0.045	0.165	0.233	0.286	0.330	0.369	0.522	0.738	0.904	1.044	1.167

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series Trim Squirt Nozzle

Flow Rate (Gallons per Minute)

Duracerm	Sapphire/ Ruby	316SS	Nozzle Number	Nozzle Orifice (inch)	Pressure (PSI)									
					20	40	60	80	100	200	400	600	800	1000
	X		048	0.048	0.188	0.266	0.325	0.376	0.420	0.594	0.840	1.029	1.188	1.328
		X	050	0.050	0.203	0.288	0.352	0.407	0.455	0.643	0.910	1.114	1.287	1.439
	X		050050	0.050 x 0.050	0.407	0.575	0.705	0.814	0.910					
		X	055	0.055	0.246	0.348	0.426	0.492	0.550	0.778	1.100	1.348	1.556	1.740
		X	060	0.060	0.293	0.415	0.508	0.587	0.656	0.928	1.312	1.607	1.856	2.075
		X	080	0.080	0.522	0.738	0.903	1.043	1.166	1.649	2.333	2.857	3.299	3.688
		X	093	0.093	0.705	0.997	1.221	1.410	1.576	2.229	3.152	3.861	4.458	4.984
		X	114	0.114	1.059	1.498	1.835	2.118	2.368	3.349	4.737	5.801	6.699	7.490

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series Trim Squirt Nozzle

Flow Rate (Liters per Minute)

Duracerm	Sapphire/ Ruby	316SS	Nozzle Number	Nozzle Orifice (mm)	Pressure kPa (Bar)									
					100	200	300	400	600	800	1000	2000	4000	7000
					1.00	2.00	3.00	4.00	6.00	8.00	10.00	20.00	40.00	70.00
	X		005	0.127	0.007	0.009	0.011	0.013	0.016	0.019	0.021	0.029	0.041	0.055
	X		005005	0.127 x 0.127	0.013	0.019	0.023	0.026	0.032	0.037	0.041	0.059	0.083	0.110
	X		008	0.200	0.017	0.024	0.029	0.034	0.041	0.048	0.055	0.075	0.105	0.140
	X		008008	0.200 x 0.200	0.033	0.047	0.058	0.067	0.082	0.095	0.110	0.150	0.210	0.280
	X	X	010	0.254	0.026	0.037	0.045	0.052	0.064	0.074	0.083	0.117	0.166	0.219
	X		010010	0.254 x 0.254	0.052	0.074	0.091	0.105	0.128	0.148	0.166	0.234	0.332	0.439
		X	012	0.305	0.038	0.054	0.066	0.076	0.086	0.100	0.120	0.169	0.240	0.317
	X		012012	0.305 x 0.305	0.076	0.107	0.131	0.152	0.173	0.200	0.240	0.339	0.479	0.634
		X	012012012	0.305 x 0.305 x 0.305	0.114	0.161	0.197	0.227	0.259	0.300	0.359	0.508	0.719	0.951
	X		013013	0.330 x 0.330	0.088	0.120	0.150	0.180	0.220	0.250	0.280	0.390	0.560	0.740
		X	014	0.356	0.051	0.073	0.089	0.103	0.126	0.145	0.162	0.230	0.325	0.430
		X	015	0.381	0.059	0.084	0.103	0.118	0.135	0.156	0.187	0.265	0.374	0.495
		X	015015	0.381 x 0.381	0.118	0.167	0.205	0.237	0.270	0.312	0.374	0.529	0.749	0.990
		X	015015015	0.038 x 0.038 x 0.038	0.178	0.251	0.308	0.355	0.405	0.468	0.562	0.794	1.123	1.486
	X		016	0.406	0.070	0.095	0.120	0.135	0.165	0.195	0.215	0.305	0.430	0.570
	X		016016	0.406 x 0.406	0.140	0.190	0.240	0.270	0.330	0.390	0.430	0.610	0.860	1.140
	X		018	0.457	0.085	0.120	0.147	0.170	0.208	0.240	0.269	0.380	0.537	0.711
		X	018018	0.457 x 0.457	0.170	0.240	0.294	0.340	0.416	0.481	0.537	0.760	1.074	1.421
		X	020	0.508	0.105	0.148	0.182	0.210	0.257	0.297	0.332	0.469	0.663	0.877
		X	020015	0.508 x 0.381	0.164	0.232	0.284	0.328	0.392	0.453	0.519	0.734	1.038	1.373
		X	020020	0.508 x 0.508	0.210	0.297	0.363	0.419	0.514	0.593	0.663	0.938	1.326	1.755
		X	020040	0.508 x 1.016	0.524	0.742	0.908	1.049	1.285	1.483	1.658	2.345	3.317	4.387
		X	023	0.584	0.139	0.196	0.240	0.277	0.340	0.392	0.439	0.620	0.877	1.160
		X	023023	0.584 x 0.584	0.277	0.392	0.480	0.555	0.679	0.785	0.877	1.240	1.754	2.321
		X	024	0.610	0.151	0.214	0.262	0.303	0.345	0.399	0.479	0.677	0.957	1.266
	X		024024	0.610 x 0.610	0.303	0.428	0.524	0.605	0.691	0.798	0.957	1.354	1.914	2.532
	X		025	0.635	0.164	0.232	0.284	0.328	0.401	0.463	0.518	0.733	1.036	1.371
	X		025020	0.635 x 0.508	0.269	0.380	0.465	0.537	0.658	0.760	0.850	1.202	1.700	2.248
	X		025025	0.635 x 0.635	0.328	0.463	0.568	0.655	0.803	0.927	1.036	1.466	2.073	2.742
	X		025020015	0.635 x 0.508 x 0.381	0.328	0.464	0.568	0.656	0.793					
	X	X	028	0.711	0.206	0.291	0.357	0.412	0.470	0.543	0.651	0.921	1.303	1.723
	X		028028	0.071 x 0.071	0.412	0.583	0.714	0.824	0.940	1.086	1.303	1.842	2.605	3.447
		X	030	0.762	0.237	0.335	0.410	0.474	0.540	0.624	0.749	1.059	1.497	1.981
		X	030030	0.762 x 0.762	0.473	0.670	0.820	0.947	1.080	1.248	1.497	2.118	2.995	3.962
		X	032	0.813	0.269	0.381	0.467	0.539	0.615	0.710	0.852	1.205	1.704	2.254
		X	033	0.838	0.286	0.405	0.496	0.573	0.654	0.755	0.906	1.281	1.812	2.397
	X		033033	0.838 x 0.838	0.573	0.810	0.992	1.146	1.307					
	X		035035	0.889 x 0.889	0.642	0.907	1.111	1.283	1.572	1.815	2.029	2.869	4.058	5.368
		X	036	0.914	0.340	0.482	0.590	0.681	0.777	0.898	1.077	1.523	2.153	2.849
X	X	X	040	1.016	0.420	0.593	0.727	0.839	1.028	1.187	1.327	1.876	2.653	3.510
	X		040040	1.016 x 1.016	0.839	1.187	1.453	1.678	2.055					
		X	045	1.194	0.532	0.752	0.921	1.064	1.214	1.402	1.682	2.379	3.365	4.451

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series Trim Squirt Nozzle

Flow Rate (Liters per Minute)

Duracerm	Sapphire/ Ruby	316SS	Nozzle Number	Nozzle Orifice (mm)	Pressure kPa (Bar)									
					100	200	300	400	600	800	1000	2000	4000	7000
					1.00	2.00	3.00	4.00	6.00	8.00	10.00	20.00	40.00	70.00
			048	1.219	0.605	0.856	1.048	1.211	1.381	1.596	1.914	2.707	3.828	5.064
		X	050	1.270	0.656	0.928	1.136	1.312	1.607	1.855	2.074	2.933	4.149	5.488
	X		050050	1.270 x 1.270	1.312	1.855	2.272	2.624	3.213					
		X	055	1.397	0.793	1.122	1.374	1.586	1.943	2.243	2.508	3.547	5.016	6.636
		X	060	1.524	0.946	1.338	1.638	1.892	2.158	2.493	2.991	4.230	5.982	7.913
		X	080	2.032	1.681	2.378	2.912	3.363	3.837	4.432	5.317	7.520	10.634	14.068
		X	093	2.362	2.272	3.214	3.936	4.545	5.185	5.990	7.186	10.162	14.371	19.012
		X	114	2.896	3.414	4.829	5.914	6.829	7.791	9.000	10.797	15.270	21.594	28.567

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

VersaTrim™ System

Trim Squirt Technology

Applications

Clean and precise sheet trimming is essential to operate a high-efficiency paper machine. The VersaTrim System provides an accurate and adjustable trim squirt system for the wet-end of the paper machine.

Features

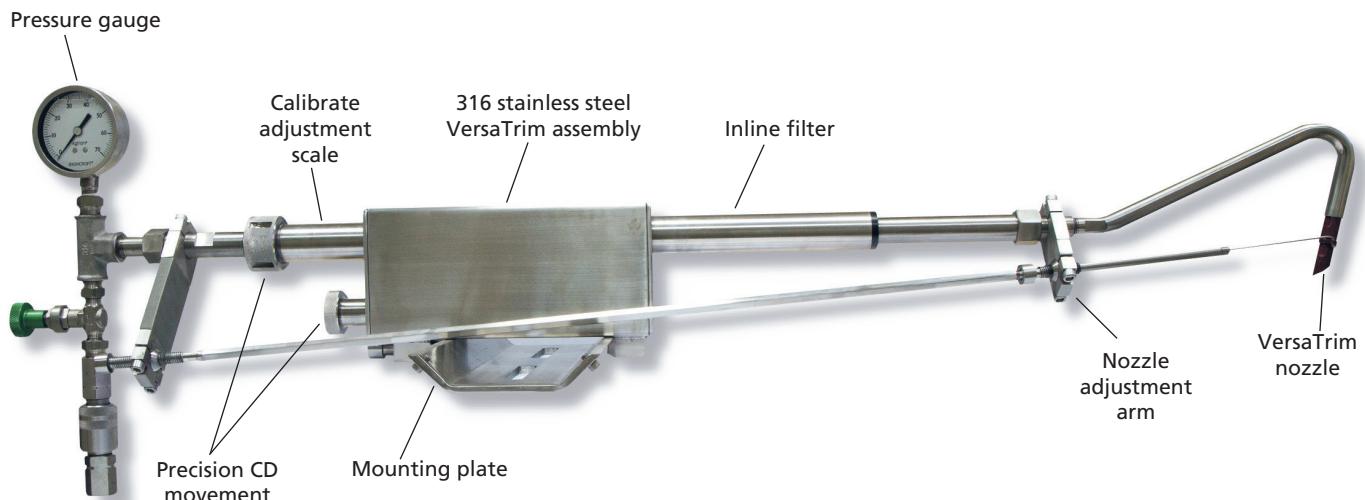
- Easy to adjust MD nozzle angle
- Precise CD adjustment
- Quick, safe replacement
- Minimizes contaminant build-up and spray back

Benefits

- Fewer wet-end breaks due to drop-offs
- Improved sheet edge
- Reduced fiber mist equals less wash-ups
- More consistent turn-ups at the reel



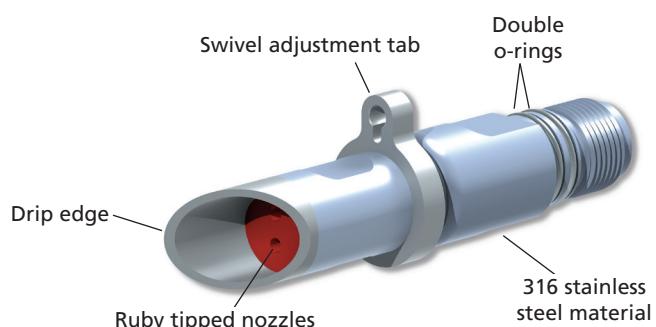
Kadant's VersaTrim turnkey solution maximizes paper machine efficiency and minimizes wet-end breaks due to drop-offs and poor edge trim quality.



Trim Squirt Nozzles

Accurate, precise trim edge

Tips can be provided in ruby, sapphire, duracerm, or stainless steel.

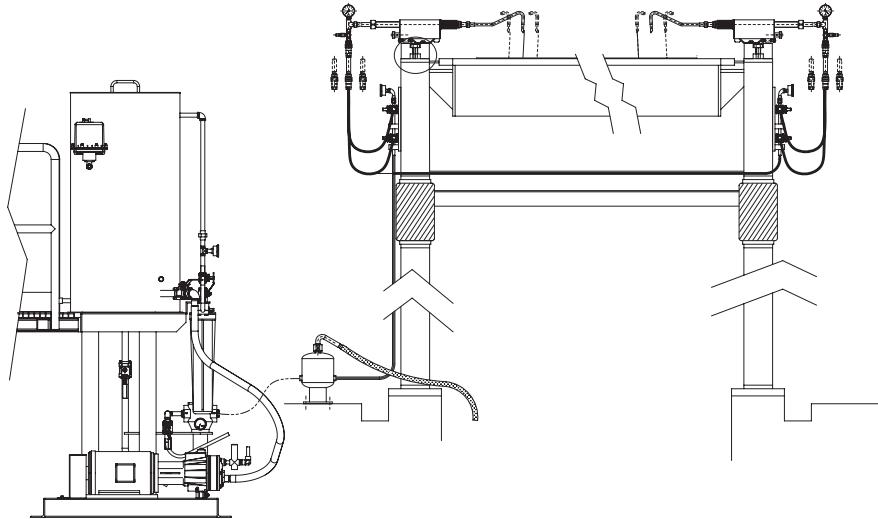


VersaTrim System

Trim Nozzle Operating Recommendations

Basis Weight				(PSI/BARS)												
#1000	#3000	#3300	gr/m ²	305	457	610	762	914	1067	1219	1372	1524	1676	1829	1981	M/minute
				1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	FPM
10.0	30	33	48.8	132/9.1	198/13.6	148/10.2	185/12.7	222/15.3	259/17.8	296/20.4	333/22.9	370/25.5	407/28.0	444/30.6	514/35.4	
13.3	40	44	65.1	135/9.3	222/15.3	165/11.4	207/14.2	248/17.1	289/19.9	331/22.8	372/25.7	414/28.5	455/31.4	468/32.3	507/35.0	
16.7	50	55	81.4	147/10.1	242/16.7	180/12.4	225/15.5	271/18.6	316/21.8	361/24.9	406/28.0	451/31.1	468/32.3	511/35.2	553/38.1	
20.0	60	66	97.6	146/10.1	237/16.3	194/13.3	242/16.7	291/20.0	339/23.4	388/26.7	436/30.1	485/33.4	503/34.6	548/37.8		
23.3	70	77	113.9	155/10.7	252/17.4	206/14.2	257/17.7	309/21.3	360/24.8	412/28.4	463/31.9	485/33.4	534/36.8	582/40.1		
26.7	80	88	130.2	153/10.5	123/8.48	194/13.3	242/16.7	291/20.0	339/23.4	388/26.7	436/30.1					Trim Nozzle Orifice
30.0	90	99	146.4	160/11.0	128/8.88	203/14.0	254/17.5	304/21.0	355/24.5	406/28.0	457/31.5					mm Inch
33.3	100	110	162.7	167/11.5	134/9.25	211/14.6	264/18.2	317/21.9	370/25.5	423/29.2	476/32.8					0.35 0.014
36.7	110	121	179.0	163/11.2	130/8.98	200/13.8	250/17.2	301/20.7	351/24.2							0.4 0.016
40.0	120	132	195.2	169/11.6	134/9.29	207/14.3	259/17.8	311/21.4	363/25.0							0.45 0.018
43.3	130	143	211.5	174/12.0	139/9.59	214/14.7	267/18.4	321/22.1	374/25.8							0.5 0.020
				Single Orifice	Dual Orifice →											0.6 0.024
																0.7 0.028
																0.8 0.031
																0.9 0.035

Complete System



Trim Squirt Systems Pump Skid



- 600 psi capability
- Temperature controlled water delivery
- Self-contained
- Low-energy usage
- 10 micron duo water filtration
- Redundant spare pump
- Precision pressure control

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Quick Connect Nozzles



QT



QV

Products

- ▶ Series QT Quick Connect Fan Nozzle 90
- ▶ Series QV Quick Connect Fan Nozzle 91

Quick Connect Nozzles

Series QT Quick Connect Fan Nozzle



Nozzle Characteristics

Replacement for Spraying Systems QVVA VeeJet™ spray nozzle.

The QT series quick connect fan nozzle is designed to allow quick and easy nozzle tip removal and installation. A seal is located on and removed with the nozzle tip during maintenance. The fan nozzle produces a uniform flat fan spray pattern, and is available in a wide range of fan angles that range from 15° to 110°.

Construction

All QT series nozzles are constructed of 316SS. The nozzles are designed for use in systems that operate up to 300 psig.

Components

Base, Nozzle — 316SS

A30875G01 – 1/8 NPTM

A30875G02 – 1/4 NPTM

A30875G03 – 3/8 NPTM

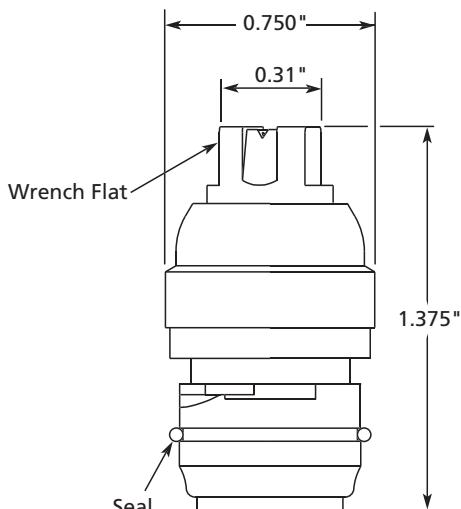
A30875G04 – 1/2 NPTM



Seal

A30056 – Buna-N

Fan Nozzle



Quick Connect Nozzle Ordering Information			
Nozzle Series	QT	S	015040 Fan/Orifice Number

Construction Material	Code
316SS	S

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Quick Connect Nozzles

Series QV Quick Connect Fan Nozzle

Nozzle Characteristics

Replacement for Spraying Systems QVV VeeJet™ spray nozzle.

The QV series quick connect fan nozzle is designed to allow quick and easy nozzle tip removal and installation. It can be provided with an NPT base that can be screwed into an existing coupling, or with a welded base for installation in a new pipe. A seal is located in the coupling between the nozzle tip and the base. The fan nozzle produces a uniform flat fan spray pattern, and is available in a wide range of fan angles that range from 15° to 110°.

Construction

All QT series nozzles are constructed of 316SS. The nozzles are designed for use in systems that operate up to 300 psig.

Components

Base, Nozzle – 316SS (includes seal)

B30012G01 – 1/8" NPT

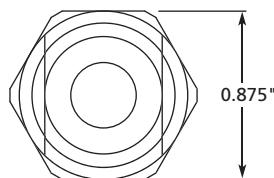
B30012G02 – 1/4" NPT

B33971 – welded

Seal

A28521 – Buna-N

Fan Nozzle



Series QT and QV Quick Connect Fan Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
15	015015	0.015	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.09	10	15	24
	015018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	10	15	24
	015021	0.021	0.05	0.07	0.08	0.10	0.11	0.13	0.15	0.18	10	15	24
	015026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	10	15	24
	015031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.33	0.41	10	15	24
	015036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	10	15	24
	015040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	10	15	24
	015043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	11	15	24
	015052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	11	15	21
	015055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	11	15	21
	015057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	11	15	21
	015062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	11	15	21
	015070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	11	15	20
	015072	0.072	0.57	0.80	0.98	1.13	1.27	1.55	1.79	2.19	10	15	19
	015078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	10	15	19
	015093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	10	15	19
	015109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	10	15	19
25	025015	0.015	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.09	14	25	34
	025018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	14	25	34
	025021	0.021	0.05	0.07	0.08	0.09	0.11	0.13	0.15	0.18	14	25	34
	025026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	14	25	33
	025031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.33	0.41	14	25	33
	025036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	14	25	33
	025040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	14	25	33
	025043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	14	25	33
	025052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	14	25	33
	025055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	14	25	33
	025057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	17	25	31
	025062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	17	25	31
	025070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	17	25	31
	025072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	17	25	31
	025078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	18	25	31
	025093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	18	25	31
	025109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	19	25	31
35	025141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	19	25	31
	025156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	21	25	29
	025172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	21	25	29
	025187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	22	25	29
	025203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	22	25	29
40	035033	0.033	0.12	0.17	0.21	0.24	0.27	0.33	0.38	0.46	24	35	43
40	040015	0.015	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.09	26	40	48
	040018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	26	40	48
	040021	0.021	0.05	0.07	0.08	0.09	0.11	0.13	0.15	0.18	26	40	48
	040026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	26	40	48

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series QT and QV Quick Connect Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
40	040031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	29	40	51
	040036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	25	40	46
	040040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	25	40	50
	040043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	30	40	50
	040052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	30	40	50
	040055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	31	40	49
	040057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	31	40	49
	040062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	31	40	49
	040070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	31	40	47
	040072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	31	40	47
	040078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	31	40	47
	040093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	31	40	47
	040109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	31	40	47
	040141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	31	40	47
	040156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	34	40	45
	040172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	35	40	45
	040187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	35	40	45
	040203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	35	40	43
50	050013	0.013	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	37	50	59
	050015	0.015	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.09	37	50	59
	050018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	37	50	59
	050021	0.021	0.05	0.07	0.08	0.09	0.11	0.13	0.15	0.18	37	50	59
	050026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	37	50	59
	050031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	38	50	58
	050036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	39	50	57
	050040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	40	50	56
	050043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	42	50	56
	050052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	42	50	56
	050055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	44	50	56
	050057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	44	50	56
	050062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	45	50	55
	050070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	45	50	55
	050072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	45	50	55
	050078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	45	50	55
	050093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	45	50	55
	050109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	45	50	55
	050141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	45	50	55
	050156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	46	50	54
	050172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	46	50	54
	050187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	46	50	54
	050203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	46	50	54
65	065013	0.013	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.07	44	65	77
	065015	0.015	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.09	44	65	77
	065018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	44	65	77

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Series QT and QV Quick Connect Fan Nozzle



Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
65	065021	0.021	0.05	0.07	0.08	0.09	0.11	0.13	0.15	0.18	44	65	77
	065026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	44	65	77
	065028	0.028	0.08	0.12	0.15	0.17	0.19	0.23	0.27	0.33	44	65	77
	065031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	44	65	77
	065036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	44	65	77
	065040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	44	65	77
	065043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	47	65	76
	065052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	47	65	76
	065055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	50	65	75
	065057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	51	65	74
	065062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	51	65	74
	065067	0.067	0.51	0.72	0.88	1.02	1.14	1.39	1.61	1.97	51	65	74
	065070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	52	65	73
	065072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	52	65	73
	065078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	55	65	73
	065093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	55	65	73
	065109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	55	65	73
	065141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	55	65	73
	065156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	54	65	73
	065172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	55	65	71
	065187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	60	65	68
	065203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	60	65	68
73	073016	0.016	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10	53	73	86
	073022	0.022	0.05	0.08	0.09	0.11	0.12	0.15	0.17	0.21	53	73	86
	073028	0.028	0.08	0.12	0.14	0.16	0.18	0.22	0.26	0.32	53	73	86
	073032	0.032	0.11	0.15	0.19	0.22	0.24	0.30	0.34	0.42	55	73	83
	073040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	58	73	82
	073045	0.045	0.22	0.31	0.38	0.44	0.49	0.60	0.69	0.84	58	73	82
	073051	0.051	0.27	0.39	0.47	0.54	0.61	0.75	0.86	1.06	58	73	81
	073056	0.056	0.33	0.46	0.57	0.65	0.73	0.89	1.03	1.27	60	73	80
	073065	0.065	0.44	0.62	0.75	0.87	0.97	1.19	1.38	1.69	63	73	78
	073072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	64	73	74
80	080018	0.018	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.14	61	80	95
	080021	0.021	0.05	0.07	0.08	0.09	0.11	0.13	0.15	0.18	67	80	94
	080026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	68	80	89
	080031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	68	80	89
	080036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	69	80	88
	080040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	70	80	87
	080043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	71	80	86
	080052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	71	80	86
	080057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	71	80	86
	080062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	72	80	85
	080070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	72	80	84

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series QT and QV Quick Connect Fan Nozzle

Flow Rate (Gallons per Minute)

Fan Angle (degree) at 40 psi	Nozzle Number	Equivalent Orifice (inch)	Pressure (PSI)								Fan Angle at psi*		
			20	40	60	80	100	150	200	300	20	40	80
80	080072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	72	80	84
	080078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	74	80	83
	080093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	74	80	83
	080109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	74	80	83
	080141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	74	80	83
	080156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	74	80	83
	080172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	75	80	83
	080187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	75	80	83
	080203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	75	80	83
95	095022	0.022	0.05	0.07	0.09	0.10	0.11	0.14	0.16	0.20	81	95	101
	095026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	81	95	101
	095031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	82	95	105
	095040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	82	95	105
	095036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	82	95	105
	095043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	82	95	105
	095052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	83	95	104
	095055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	83	95	104
	095057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	84	95	102
	095062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	86	95	101
	95070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	87	95	100
	095072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	87	95	100
	095078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	89	95	100
	095093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	90	95	100
	095109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	90	95	100
	095141	0.141	2.12	3.00	3.67	4.24	4.74	5.81	6.71	8.22	91	95	101
	095156	0.156	2.83	4.00	4.90	5.66	6.32	7.75	8.94	10.95	92	95	100
	095172	0.172	3.54	5.00	6.12	7.07	7.91	9.68	11.18	13.69	93	95	99
	095187	0.187	4.24	6.00	7.35	8.49	9.49	11.62	13.42	16.43	93	95	99
	095203	0.203	4.95	7.00	8.57	9.90	11.07	13.56	15.65	19.17	93	95	99
110	110022	0.022	0.05	0.08	0.09	0.11	0.12	0.15	0.17	0.21	94	110	121
	110026	0.026	0.07	0.10	0.12	0.14	0.16	0.19	0.22	0.27	94	110	121
	110031	0.031	0.11	0.15	0.18	0.21	0.24	0.29	0.34	0.41	97	110	121
	110036	0.036	0.14	0.20	0.24	0.28	0.32	0.39	0.45	0.55	98	110	120
	110040	0.040	0.18	0.25	0.31	0.35	0.40	0.48	0.56	0.68	98	110	120
	110043	0.043	0.21	0.30	0.37	0.42	0.47	0.58	0.67	0.82	100	110	119
	110052	0.052	0.28	0.40	0.49	0.57	0.63	0.77	0.89	1.10	100	110	119
	110055	0.055	0.31	0.45	0.55	0.63	0.70	0.86	1.00	1.22	100	110	118
	110057	0.057	0.35	0.50	0.61	0.71	0.79	0.97	1.12	1.37	100	110	118
	110062	0.062	0.42	0.60	0.73	0.85	0.95	1.16	1.34	1.64	101	110	117
	110070	0.070	0.53	0.75	0.92	1.06	1.19	1.45	1.68	2.05	102	110	117
	110072	0.072	0.57	0.80	0.98	1.13	1.26	1.55	1.79	2.19	102	110	117
	110078	0.078	0.71	1.00	1.22	1.41	1.58	1.94	2.24	2.74	103	110	117
	110093	0.093	1.06	1.50	1.84	2.12	2.37	2.90	3.35	4.11	104	110	117
	110109	0.109	1.41	2.00	2.45	2.83	3.16	3.87	4.47	5.48	105	110	118

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Series QT and QV Quick Connect Fan Nozzle



Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Number	Equivalent Orifice (mm)	Pressure kPa (Bars)									Fan Angle at kPa (Bar)*		
			100 1.00	200 2.00	300 3.00	400 4.00	500 5.00	1000 10.00	1500 15.00	2000 20.00	138 1.38	275 2.75	552 5.52	
15	015011	0.279	0.039	0.055	0.067	0.077	0.087	0.123	0.150	0.173	10	15	24	
	015013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	10	15	24	
	015015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	10	15	24	
	015018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	10	15	24	
	015021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	10	15	24	
	015026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	10	15	24	
	015036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	10	15	24	
	015040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	11	15	24	
	015043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	11	15	21	
	015052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	11	15	21	
	015055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	11	15	21	
	015062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	11	15	21	
	015070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	11	15	20	
	015078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	10	15	19	
	015093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	10	15	19	
	015109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	10	15	19	
25	025011	0.279	0.039	0.055	0.067	0.077	0.087	0.123	0.150	0.173	10	15	19	
	025013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	14	25	34	
	025015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	14	25	34	
	025018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	14	25	34	
	025021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	14	25	33	
	025026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	14	25	33	
	025036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	14	25	33	
	025043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	14	25	33	
	025052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	14	25	33	
	025057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	14	25	33	
	025062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	14	25	33	
	025072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	17	25	31	
	025078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	17	25	31	
	025093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	17	25	31	
	025109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	17	25	31	
	025141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	18	25	31	
	025156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	18	25	31	
	025172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	19	25	31	
	025187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	19	25	31	
	025203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	21	25	29	
40	040011	0.279	0.039	0.055	0.067	0.077	0.087	0.123	0.150	0.173	21	25	29	
	040013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	22	25	29	
	040015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	22	25	29	
	040018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	24	35	43	
	040021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	26	40	48	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series QT and QV Quick Connect Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Number	Equivalent Orifice (mm)	Pressure kPa (Bars)									Fan Angle at kPa (Bar)*		
			100	200	300	400	500	1000	1500	2000	138	275	552	
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52	
40	040026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	26	40	48	
	040031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	26	40	48	
	040036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	26	40	48	
	040043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	29	40	51	
	040052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	25	40	46	
	040057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	25	40	50	
	040062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	30	40	50	
	040072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	30	40	50	
	040078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	31	40	49	
	040093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	31	40	49	
	040109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	31	40	49	
	040141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	31	40	47	
	040156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	31	40	47	
	040172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	31	40	47	
	040187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	31	40	47	
	040203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	31	40	47	
	040250	6.35	22.8	32.2	39.5	45.6	51.0	64.9	79.4	91.7	31	40	47	
50	050011	0.279	0.039	0.055	0.067	0.077	0.087	0.123	0.150	0.173	34	40	45	
	050013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	35	40	45	
	050015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	35	40	45	
	050018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	35	40	43	
	050021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	37	50	59	
	050026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	37	50	59	
	050036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	37	50	59	
	050043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	37	50	59	
	050052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	37	50	59	
	050057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	38	50	58	
	050062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	39	50	57	
	050072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	40	50	56	
	050078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	42	50	56	
	050093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	42	50	56	
	050109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	44	50	56	
	050141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	44	50	56	
	050156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	45	50	55	
	050172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	45	50	55	
	050187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	45	50	55	
	050203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	45	50	55	
65	065011	0.279	0.039	0.055	0.067	0.077	0.087	0.123	0.150	0.173	44	65	77	
	065013	0.330	0.057	0.081	0.099	0.114	0.127	0.180	0.221	0.255	44	65	77	
	065015	0.381	0.075	0.106	0.130	0.150	0.168	0.238	0.291	0.336	44	65	77	
	065018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	44	65	77	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.



Series QT and QV Quick Connect Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Number	Equivalent Orifice (mm)	Pressure kPa (Bars)										Fan Angle at kPa (Bar)*		
			100	200	300	400	500	1000	1500	2000	138	275	552		
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52		
65	065021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	44	65	77		
	065026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	44	65	77		
	065028	0.711	0.273	0.387	0.474	0.547	0.611	0.865	1.06	1.22	44	65	77		
	065031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	44	65	77		
	065036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	44	65	77		
	065040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	47	65	76		
	065043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	47	65	76		
	065052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	50	65	75		
	065057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	51	65	74		
	065062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	51	65	74		
	065072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	51	65	74		
	065078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	52	65	73		
	065093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	52	65	73		
	065109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	55	65	73		
	065141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	55	65	73		
	065156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	55	65	73		
	065172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	55	65	73		
	065187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	54	65	73		
	065203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	55	65	71		
73	073012	0.305	0.052	0.074	0.090	0.104	0.117	0.165	0.202	0.234	55	65	71		
	073016	0.406	0.093	0.131	0.160	0.185	0.207	0.293	0.359	0.414	55	65	71		
	073022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	55	65	71		
	073032	0.813	0.351	0.496	0.608	0.702	0.785	1.11	1.36	1.57	56	65	71		
	073040	1.02	0.570	0.806	0.987	1.14	1.27	1.80	2.21	2.55	56	65	70		
	073045	1.14	0.702	0.993	1.22	1.40	1.57	2.22	2.72	3.14	57	65	70		
	073056	1.42	1.05	1.49	1.82	2.11	2.35	3.33	4.08	4.71	58	65	69		
	073072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	59	65	68		
80	080018	0.457	0.114	0.161	0.197	0.228	0.255	0.360	0.441	0.510	60	65	68		
	080021	0.533	0.153	0.216	0.264	0.305	0.341	0.483	0.591	0.683	60	65	68		
	080026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	53	73	86		
	080031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	53	73	86		
	080036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	53	73	86		
	080043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	55	73	83		
	080052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	58	73	82		
	080057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	58	73	82		
	080062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	58	73	81		
	080072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	60	73	80		
	080078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	63	73	78		
	080093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	64	73	74		
	080109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	63	73	73		
	080141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	61	80	95		
	080156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	67	80	94		

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.



Series QT and QV Quick Connect Fan Nozzle

Flow Rate (Liters per Minute)

Fan Angle (degree) at 275 kPa (2.75 Bar)	Nozzle Number	Equivalent Orifice (mm)	Pressure kPa (Bars)									Fan Angle at kPa (Bar)*		
			100	200	300	400	500	1000	1500	2000	138	275	552	
			1.00	2.00	3.00	4.00	5.00	10.00	15.00	20.00	1.38	2.75	5.52	
80	080172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	68	80	89	
	080187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	68	80	89	
	080203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	69	80	88	
95	095022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	70	80	87	
	095026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	71	80	86	
	095031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	71	80	86	
	095036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	71	80	86	
	095043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	72	80	85	
	095052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	72	80	84	
	095057	1.45	1.14	1.61	1.97	2.28	2.55	3.60	4.41	5.10	72	80	84	
	095062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	74	80	83	
	095072	1.83	1.82	2.58	3.16	3.65	4.08	5.77	7.06	8.15	74	80	83	
	095078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	74	80	83	
	095093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	74	80	83	
	095109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	74	80	83	
	095141	3.58	6.84	9.67	11.8	13.7	15.3	21.6	26.5	30.6	75	80	83	
	095156	3.96	9.12	12.9	15.8	18.2	20.4	28.8	35.3	40.8	75	80	83	
	095172	4.37	11.4	16.1	19.7	22.8	25.5	36.0	44.1	51.0	75	80	83	
	095187	4.75	13.7	19.3	23.7	27.3	30.6	43.2	53.0	61.1	81	95	101	
	095203	5.16	16.0	22.6	27.6	31.9	35.7	50.4	61.8	71.3	81	95	101	
110	110022	0.559	0.175	0.248	0.304	0.351	0.392	0.555	0.680	0.785	82	95	105	
	110026	0.660	0.228	0.322	0.395	0.456	0.510	0.721	0.883	1.02	82	95	105	
	110031	0.787	0.342	0.483	0.592	0.684	0.764	1.08	1.32	1.53	82	95	105	
	110036	0.914	0.456	0.645	0.789	0.912	1.02	1.44	1.77	2.04	82	95	105	
	110043	1.09	0.684	0.967	1.18	1.37	1.53	2.16	2.65	3.06	83	95	104	
	110052	1.32	0.912	1.29	1.58	1.82	2.04	2.88	3.53	4.08	83	95	104	
	110055	1.40	1.01	1.43	1.76	2.03	2.27	3.21	3.93	4.54	84	95	102	
	110062	1.57	1.37	1.93	2.37	2.73	3.06	4.32	5.30	6.11	86	95	101	
	110070	1.78	1.71	2.42	2.96	3.42	3.82	5.40	6.62	7.64	87	95	100	
	110078	1.98	2.28	3.22	3.95	4.56	5.10	7.21	8.83	10.2	87	95	100	
	110093	2.36	3.42	4.83	5.92	6.84	7.64	10.8	13.2	15.3	89	95	100	
	110109	2.77	4.56	6.45	7.89	9.12	10.2	14.4	17.7	20.4	90	95	100	

*Angle measurements are for reference only. Contact Kadant Solutions Division for application-specific information.

Tools and Accessories



Nozzle Blanks



Hex Wrench



Oblong Wrench



Shower Brush

Products

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Tools and Accessories

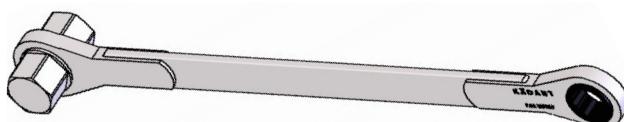
For PN and PT series spray nozzles



Hex wrench
N6601
Check nut N6759
removal wrench



Oblong wrench
N-6602
Nozzle body removal
tool.



For BF and BTK series spray nozzles

B39859
Wrench ratcheting, 1.0" hex.

Spray nozzle blanks



A127-1
To disable BB series spray nozzles
or other with 1/4" - 28 thread



S4-96
To disable PN and PT series self
purging spray nozzles



B36132G00 (with O-ring)
To disable JN and JJ series spray
nozzles or other with 9/16" - 24
thread



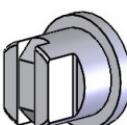
C14239
To disable BF nozzle
C29704
To disable BT or BZ nozzle



A18163
To disable DF and DL series disc
spray nozzles



42-108-002
To disable PP series self purging
spray nozzles



A26892G06
To disable DF and DL series disc
spray nozzles

Tools and Accessories

Lacing wire pliers and piston removal tool

For PP series self purging spray nozzles



Lacing wire pliers
A14879



Piston removal tool
A8½ - 169

Tap and die

For JN and JJ series spray nozzles



Thread plug tap
A10281 – $\frac{9}{16}$ " - 24 thread
A25645 – $1\frac{1}{8}$ " - 20 thread



Thread dies
A10282 – $\frac{9}{16}$ " - 24 thread
A27108 – $\frac{3}{4}$ " - 27 thread
A26264 – $1\frac{1}{8}$ " - 20 thread

Shower brush

For aqua shuttle shower systems



Shower brush
N7618

Part numbers

- 1.5" Pipe Sch 10 - B28621G01
- 2.0" Pipe Sch 10 - B28621G02
- 2.5" Pipe Sch 10 - B28621G03
- 3.0" Pipe Sch 10 - B28621G04
- 4.0" Pipe Sch 10 - B28621G05
- 6.0" Pipe Sch 10 - B28621G06

Nozzle Adapters

Nozzle Adapters

A nozzle adapter is a fitting that threads to the base of an existing shower pipe, and allows the use of a nozzle with a different thread connection size than it was originally designed to accept. It may be desirable to install adapters if the shower service or location is changing, if the shower uses hard to purchase nozzles, or for issues associated with inventory reduction.

Nozzle Adapter	Part Number	Shower Manufacturer	Original Type of Shower Nozzle	Typical New Nozzle Type	Connector Thread Size (Connect to Nozzle Base)	Connector Thread Size (Connect to New Nozzle)	Comment	Connector Length
	A26551	CVN		JN, JJ, VF, FF	3/4-24 F	9/16-24 F	Straight connection	1.0" L
	A26727	CVN		JN, JJ, VF, FF	3/4-24 F	9/16-24 F	Straight connection	1.0" L
	B28293	Kadant Solutions Division	BF, BT	JN, JJ, VF, FF	Kadant brush shower	9/16-24 F	Disc	1.162" maximum diameter
	A26628	Kadant Solutions Division	JN, JJ, VF, FF	SB, FF, QV	9/16-24 M	1/8 NPT F	Straight connection	0.57" L
	B25431	Kadant Solutions Division	PN, PT	JN, JJ, VF, FF	1 1/8 -20 M	9/16-24 F	Straight connection with O-ring	0.875" L
	B30348	Kadant Solutions Division	PN, PT	SB, FF, QV	1 1/8 -20 M	1/4 NPT F	Straight connection	0.75" L
	B30348G01	Kadant Solutions Division	PN, PT	SB, FF, QV	1 1/8 -20 M	1/8 NPT F	Straight connection	0.75" L
	B35908	Kadant Solutions Division	PN, PT	JN, JJ, VF, FF	1 1/8 -20 M	9/16-24 F	Straight connection	0.75" L
	B27095G01	Kadant Solutions Division	PP	JN, JJ, VF, FF	42 base	9/16-24 F	O-ring included	0.85" L
	B27095G02	Kadant Solutions Division	PP	SB, FF, QV	42 base	1/4 NPT F	O-ring included	0.85" L
	B29448	Kadant Solutions Division	PP	JN, JJ, VF, FF	42 base	9/16-24 F	64 degree deflection, has O-ring	1.75" L

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

Nozzle Adapters

Nozzle Adapter	Part Number	Shower Manufacturer	Original Type of Shower Nozzle	Typical New Nozzle Type	Connector Thread Size (Connect to Nozzle Base)	Connector Thread Size (Connect to New Nozzle)	Comment	Connector Length
	B32110	Kadant Solutions Division	PP	SB, FF, QV	42 base	1/4 NPT F	Straight connection, with O-ring and nozzle extension	6.375" L
	A29330	Kadant Solutions Division	QV, FF, SB	BB	1/4 NPT M	1/4-28 F	90 degree elbow	1.0" L, 0.625" HEX
	A27771	Stamm	Brush Shower	SB, FF, QV	Stamm brush disc	1/8 NPT F	Disc	1.020 diameter x 0.25" length
	A29201	Stamm	Brush Shower	SB, FF, QV	Stamm brush disc	1/4 NPT F	Disc	1.020 diameter x 0.25" length
	B35850	Stamm	Metric Threads	JN, JJ, VF, FF	M30 X 1.5 M	9/16-24 F	Stamm metric brush shower	0.85" L
	B32943G01	Stamm	Brush Shower	SB, FF, QV	1 3/16-18 M	1/8 NPT F	Straight connection	0.875" L
	B32943G02	Stamm	Brush Shower	SB, FF, QV	1 3/16-18 M	1/4 NPT F	Straight connection	0.875" L
	B32943G03	Stamm	Brush Shower	JN, JJ, VF, FF	1 3/16-18 M	9/16-24 F	Straight connection	0.875" L
	C31499	Stamm	Brush Shower	PN, PT	1 3/16-18 M	1 1/8-20 F	Straight connection	1.42" L
	A26897	Unknown	Unknown	JN, JJ, VF, FF	7/8-20 M	9/16-24 F	Straight connection	1.0" L

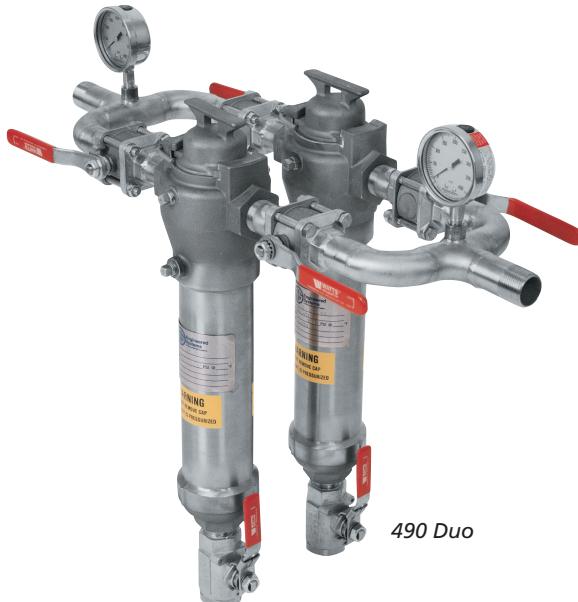
Contact Kadant Solutions Division for additional sizes.

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Filtration

In-line single and duo filters

Kadant in-line filters can be provided in either a single or duplex arrangement. A single in-line filter is normally used in applications where the flow can be interrupted or the filter can be bypassed when the filter element is serviced. Duo filters are typically used when continuous filtration is required. They can be operated with either one or two filter housings on-line. Because of the inlet/outlet orientation, both the single and duo in-line filters can be easily, quickly, and cost effectively installed in a horizontal run of pipe.



Model	Pipe Connection ¹	Filter Element Size (D x L)	Area (sq. in.)	Maximum Flow 2 (gpm/lpm)	Can Use 2" x 12" Segments	Number of 2" x 12" Segments	Design Pressure (psi)	Minimum Installation Area (L x W x H)
340	3/4"	1.625" x 4.75"	22	15/60	N	NA	300, 1000	6" x 4" x 14"
490	1"	2" x 12"	75	30/115	Y	1	300, 1000	7" x 9" x 24"
770A	2"	2" x 12"	75	40/151	Y	1	300, 1000	8" x 12" x 24"
770B	2"	2" x 24"	150	80/303	Y	2	300, 1000	8" x 12" x 48"
770C	2"	2" x 36"	225	120/454	Y	3	300, 1000	8" x 12" x 48"
Hi-Flo™ Single 3	2"	3.25" x 40"	408	200/760	N	NA	300, 1000	10" x 15" x 60"
340 Duo	3/4"	1.625" x 4.75"	44	30/115	N	NA	300, 1000	20" x 14" x 18"
490 Duo	1"	2" x 12"	150	60/230	Y	2	300, 1000	32" x 14" x 26"
770A Duo	2"	2" x 12"	150	80/303	Y	2	300, 1000	40" x 20" x 24"
770B Duo	2"	2" x 24"	300	160/606	Y	4	300, 1000	40" x 20" x 36"
770C Duo	2"	2" x 36"	450	240/908	Y	6	300, 1000	40" x 20" x 48"
Hi-Flo Duo 3	2"	3.25" x 40"	816	400/1520	N	NA	300, 1000	44" x 34" x 60"

¹ NPT connection is standard. Socket weld and lap joint flange connections are available.

² Flow is based on the inlet and outlet connection size. Actual flow will be dependent upon the type of filter media used and influent contaminant loading.

³ Use of Tri-Screen filter elements will increase filtration area from 408 in² to 565 in² per barrel. Tri-Screen flow rate is limited to 120 gpm (454 lpm) for single and 240 gpm (908 lpm) for duo.

Contact Kadant Solutions Division for additional sizes.

Dimensions are for reference only and subject to change.

[Go to Tools and Accessories Tab](#)

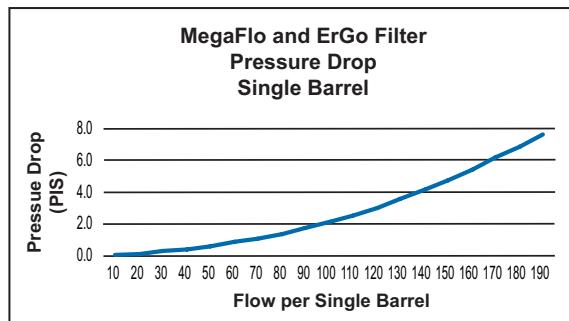
Filtration

Bottom entry single and duo filters

Kadant bottom entry filters are commonly used in vertical piping system installations or in applications such as slurries where flow from the bottom to the top will help mix the fluid and prevent particles from settling. Fluid enters through a connection near the bottom of the filter housing and clean liquid exits at the top. Like the in-line filter system, the fluid flows from the outside to the inside of the filter screen, depositing debris on the exterior of the filter elements.

MegaFlo Series Filter
Single Barrel

Flow Per Barrel	Clean Pressure Drop (PSID)
10	0.0
20	0.1
30	0.2
40	0.3
50	0.5
60	0.8
70	1.0
80	1.3
90	1.7
100	2.1
110	2.5
120	3.0
130	3.5
140	4.1
150	4.7
160	5.4
170	6.1
180	6.8
190	7.6



Model	Pipe Connection ¹	Filter Element Size (D x L)	Area (sq. in.)	Maximum Flow ² (gpm/lpm)	Design Pressure (psi)	Minimum Installation Area (L x W x H)
MegaFlo	2"	3.25" x 40"	408	200/760	300, 100	8" x 12" x 58"
MegaFlo Duo ³	2", 2½"	3.25" x 40"	816	400/1520	300, 1000	40" x 32" x 58"

¹ 2" plain end for socket weld connection standard on single units.

2" NPT standard on duo's; lap joint flange connections available on all models.

² Flow is based on the inlet and outlet connection size.

Actual flow will be dependent upon the filter media used and influent contaminants loading.

³ Use of Tri-Screen filter elements will increase filtration area from 408 in² to 565 in² per barrel.
Tri-Screen flow rate is limited to 120 gpm (454 lpm) for single and 240 gpm (908 lpm) for duo.

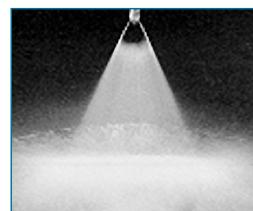
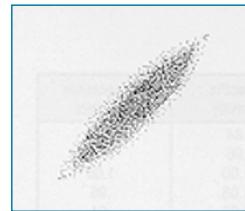
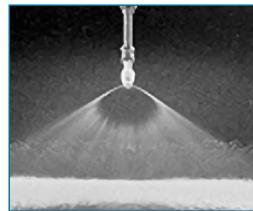
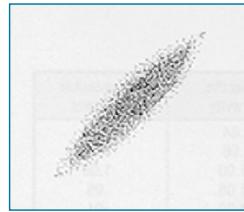
Technical Information

The following information is a guide to help select the proper spray nozzle for the application and provide engineering information to obtain peak performance for Kadant spray nozzles. Because of the large number of variables in selecting the correct spray nozzle it is not always possible to determine the proper spray nozzle without testing or simulation. Our technical staff, however, may be able to help determine the proper spray nozzle style and size for your application.

Spray Characteristics

Flat Fan Spray

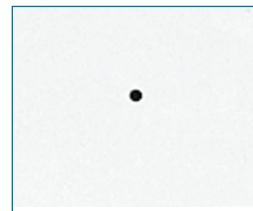
Flat fan spray nozzles distribute the liquid as a flat sheet and is formed by a straight-through elliptical orifice or by a round orifice tangential to a deflected surface. Kadant supplies a large selection of fan angles and orifice sizes to meet specific applications.



Technical Information

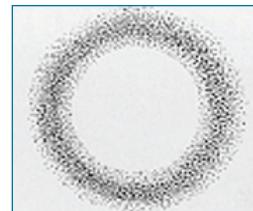
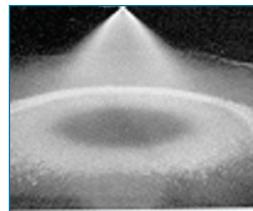
Solid Jet Stream

For cleaning and cutting applications Kadant solid jet spray nozzles are offered in various size orifices and materials to meet the individual application. They provide a straight stream of concentrated liquid and are used whenever a concentrated impact is required.



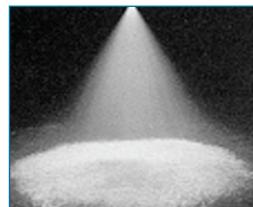
Hollow Cone

This spray nozzle is typically a right angle nozzle and sprays a circular pattern in a cone shape. The pattern is achieved by the liquid swirling inside the nozzle prior to the orifice.



Full Cone

The full cone spray nozzle sprays in a circular cone and a square pattern. They are used when a uniform large spray area is required.



Technical Information

Factors that affect spray characteristics

Pressure

Theoretically, flow is directly proportional to the square root of pressure and is represented by the equation below. Therefore, this equation can be used to calculate other flows and pressure not listed in this catalog.

$$\frac{\text{Flow A}}{\text{Flow B}} = \frac{\sqrt{\text{Pressure A}}}{\sqrt{\text{Pressure B}}}$$

$$\text{Flow B} = \text{Flow A} \sqrt{\frac{\text{Pressure B}}{\text{Pressure A}}}$$

Example: Given the flow at 40 psi is 0.300 gpm. What is the flow at 80 psi?

$$\text{Flow B} = 0.300 \sqrt{\frac{80}{40}} = 0.424 \text{ gpm}$$

$$\text{Pressure B} = \text{Pressure A} \left(\frac{\text{Flow B}}{\text{Flow A}} \right)^2$$

Example: Given the pressure of 60 psi and the flow is 1.220 gpm. What is the pressure at 1.410 gpm?

$$\text{Pressure B} = 60 \left(\frac{1.410}{1.220} \right)^2 = 80.1 \text{ psi}$$

Specific Gravity

Flow rates specified in this catalog are for water which has a specific gravity, the ratio of the mass of a given volume of liquid to the same mass of the same volume of water, is 1.00. To calculate the flow of liquids the below equation can be used.

$$\text{Flow of Liquid} = \text{Flow Rate of Water} \frac{1}{\sqrt{\text{Specific Gravity}}}$$

For example, for a specific gravity of 1.10:

$$4.0 \text{ gpm of water} \frac{1}{\sqrt{1.10 \text{ Specific Gravity}}} = 3.8 \text{ gpm of water}$$

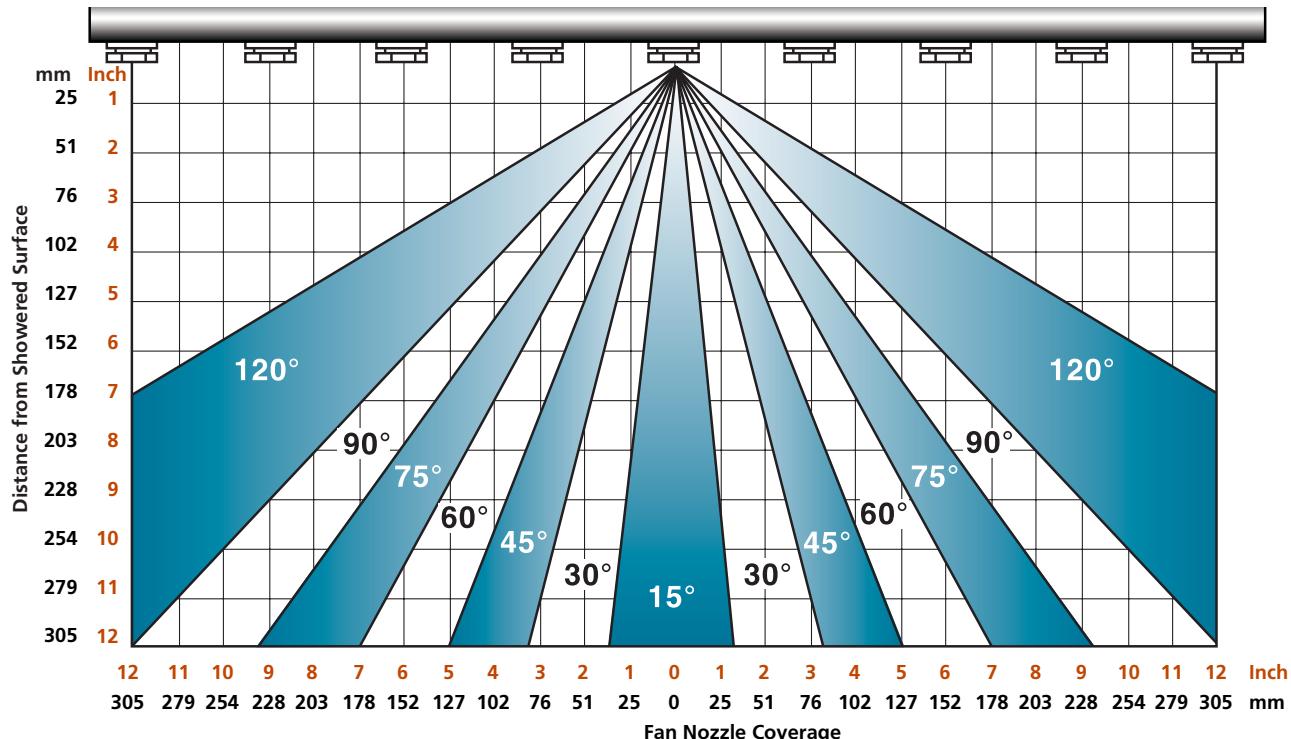
Shower Water Quality	
Solids Loading PPM (Mg/L)	Application of water strained with 100 mesh per Inch (40 per CM) mesh screen
0 – 50	Equivalent to filter fresh water
50 – 75	Usable in 0.040" (1 mm) and larger fixed orifice nozzles with minimal problems
75 – 100	Usable in 0.055" (1.4 mm) and larger fixed orifice nozzles with minimal problems
100 – 200	Usable in 0.125" (3 mm) and larger fixed orifice nozzles with minimal problems
200 – 500	Brush type shower recommended
500 – up	Purgeable showers recommended

Technical Information

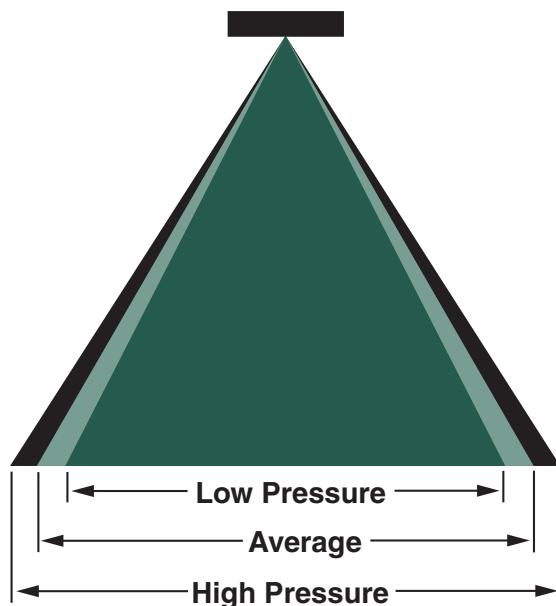
Selection Guide

Spray Coverage

The spray coverage graph shown below is based on a straight sided spray pattern. At pressures below 40 psi the fan angle degree will decrease and curve due to decreased acceleration.



Spray widths in the above graph are based on a straight sided spray pattern. At lower pressures the pattern curves inward and at higher pressures the fan pattern will increase as shown below.



Technical Information

Flow of water through schedule 40 steel pipe

Flow (GPM)	Pressure Drop in PSI for Pipe Sizes (in 10 foot Length)															
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"	8"
0.3	0.42															
0.4	0.70	0.24														
0.5	1.10	0.24														
0.6	1.50	0.33														
0.8	2.50	0.54	0.13													
1.0	3.70	0.83	0.19	0.06												
1.5	8.00	1.80	0.40	0.12												
2.0	13.40	3.00	0.66	0.21	0.05											
2.5		4.50	1.00	0.32	0.08											
3.0		6.40	1.40	0.43	0.11											
4.0		11.10	2.40	0.74	0.18	0.06										
5.0			3.70	1.10	0.28	0.08										
6.0			5.20	1.60	0.38	0.12										
8.0			9.10	2.80	0.66	0.20	0.05									
10.0				4.20	1.00	0.30	0.08									
15.0					2.20	0.64	0.16	0.08								
20.0					3.80	1.10	0.28	0.13	0.04							
25.0						1.70	0.42	0.19	0.06							
30.0						2.40	0.59	0.27	0.08							
35.0						3.20	0.79	0.36	0.11	0.04						
40.0							1.00	0.47	0.14	0.06						
45.0							1.30	0.59	0.17	0.07						
50.0							1.60	0.72	0.20	0.08						
60.0							2.20	1.00	0.29	0.12	0.04					
70.0								1.40	0.38	0.16	0.05					
80.0								1.80	0.50	0.20	0.07					
90.0								2.20	0.62	0.25	0.09	0.04				
100.0								2.70	0.76	0.31	0.11	0.05				
125.0									1.20	0.47	0.16	0.08	0.04			
150.0									1.70	0.67	0.22	0.11	0.06			
200.0									2.90	1.20	0.39	0.19	0.10			
250.0										0.59	0.28	0.15	0.05			
300.0										0.84	0.40	0.21	0.07			
400.0											0.70	0.37	0.12	0.05		
500.0												0.57	0.18	0.07		
750.0													0.39	0.16	0.04	
1000.0														0.68	0.27	0.07
2000.0															1.00	0.26

Related Components

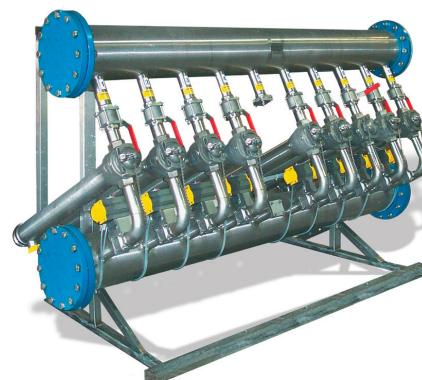
In-line filters

The simple filter design allows screens to be serviced quickly and efficiently. In-line filters can be provided in either a single or duplex arrangement. Single in-line filters are generally used in applications where the flow can be interrupted or when the filter can be bypassed for servicing the filter element. Duo filters are typically used when continuous filtration is required. In-line filters are available in sizes from 3½" to 21½" with flow capacities up to 2,500 gpm.



Liquid filtration systems

Liquid filtration systems are used in a variety of applications that processes or use fluids. Multiple barrel filter systems may use internal or external sources of backwashing fluids in the removal of contaminants from the process with flow capacities up to 5,000 gpm. The ErGo™ multiple filter has a unique design that provides an ergonomic and simple element removal design for improved safety and ease of maintenance.



RotoFlex™ resource recovery strainer

The RotoFlex resource recovery strainer is used to effectively and efficiently separate and reclaim process fluids and/or solids. It uses a unique method of media cleaning to keep the filter medium open by continuously flushing contaminates from the surface. The RotoFlex resource recovery strainer free-hanging backerless design maximizes throughput and media life.



High- and low-pressure water cleaning systems

Kadant water cleaning systems are designed to use high-pressure and/or low-pressure water to remove contaminants from moving belts and rolls. Cleaning systems can also incorporate water and contaminant removal systems, utilizing vacuum.



Related Components

Steam profiling



Profiling Steam-Foil® systems and Narrow Web DeCurler® profiling provide moisture addition and curl control in applications such as coating, laminating, printing, and corrugating. Kadant's steam profiling technology offers an efficient and controllable non-contact method of steam application.



Roll cleaning blades

Roll cleaning blades are used in a variety of industries and applications including fiber processing, converting, corrugating, printing, roofing, steel, and food processing. Kadant offers more than 60 blade materials including UHMW poly, fiberglass, carbon, and metal. Blade thickness, bevel, and other features are customer-engineered for the specific application requirements.



Roll cleaning blade holders and accessories

Roll cleaning blade holders feature quick and easy blade changing, precise adjustability, and flexible models that offer self-adjustability and uniform loading. Roll cleaning blade holders are available in steel, stainless steel, and lightweight composite materials.



Roll cleaning systems

Kadant roll cleaning systems provide a compact and unique technology that offers improved cleaning results for increased uptime and reduced maintenance costs in a variety of industrial roll and belt cleaning applications including drum flaking, fiber processing, filtration, and metal processing. Roll cleaning systems provide precise blade load adjustment and quick blade change.

Parts Cross Reference



Instructions

The Parts Cross Reference is organized by Part Number. Locate the Part Number to obtain OLD Nozzle Code and NEW Nozzle Code information.

Parts Cross Reference

B36775G033 - C31969G02

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36775G033	C3014	BB4UA033
128C-020	C3001	BB4US020
128C-028	C3002	BB4US028
128C-033	C3003	BB4US033
128C-040	C3004	BB4US040
128C-055	C3005	BB4US055
128C-070	C3006	BB4US070
128C-093	C3007	BB4US093
128C-125	C3008	BB4US125
C14506GP25	B1016	BFSH015040
C14506GP26	B1017	BFSH015055
C14506GP27	B1018	BFSH015070
C14506GP60	B1042	BFSH015093
C14506GP75	B1059	BFSH015109
C14506GP80	B1068	BFSH015125
C14506GP35	B1025	BFSH030040
C14506GP7	B1051	BFSH030055
C14506GP39	B1027	BFSH030063
C14506GP43	B1031	BFSH030070
C14506GP8	B1055	BFSH030094
C14506GP40	B1029	BFSH030110
C14506GP9	B1056	BFSH030125
C14506GP51	B1035	BFSH030144
C14506GP1	B1001	BFSH030156
C14506GP10	B1002	BFSH030171
C14506GP11	B1003	BFSH030188
C14506GP56	B1038	BFSH030203
C14506GP34	B1024	BFSH030218
C14506GP61	B1043	BFSH030250
C14506GP41	B1030	BFSH030281
C14506GP76	B1060	BFSH030296
C14506GP12	B1004	BFSH040111
C14506GP82	B1080	BFSH040125
C14506GP73	B1057	BFSH045033
C14506GP74	B1058	BFSH045050
C14506GP2	B1012	BFSH045055
C14506GP3	B1020	BFSH045070
C14506GP13	B1005	BFSH045094
C14506GP54	B1037	BFSH045110
C14506GP4	B1028	BFSH045125

Part Number	OLD Nozzle Code	NEW Nozzle Code
C14506GP37	B1026	BFSH045156
C14506GP50	B1034	BFSH045171
C14506GP78	B1062	BFSH045188
C14506GP58	B1040	BFSH045250
C14506GP83	B1086	BFSH045288
C14506GP62	B1044	BFSH057250
C14506GP63	B1045	BFSH060028
C14506GP65	B1046	BFSH060031
C14506GP47	B1032	BFSH060040
C14506GP32	B1022	BFSH060050
C14506GP66	B1047	BFSH060050
C14506GP14	B1006	BFSH060055
C14506GP33	B1023	BFSH060070
C14506GP81	B1079	BFSH060079
C14506GP68	B1049	BFSH060086
C14506GP15	B1007	BFSH060094
C14506GP57	B1039	BFSH060109
C14506GP69	B1050	BFSH060118
C14506GP16	B1008	BFSH060125
C14506GP17	B1009	BFSH060156
C14506GP70	B1052	BFSH060188
C14506GP71	B1053	BFSH070033
C14506GP18	B1010	BFSH082090
C14506GP21	B1014	BFSH090078
C14506GP19	B1011	BFSH090111
C31724G25	B3019	BFSL015040
C31724G26	B3020	BFSL015055
C31724G27	B3021	BFSL015070
C31724G60	B3038	BFSL015093
C31724G75	B3051	BFSL015109
C31724G80	B3065	BFSL015125
C31724G35	B3025	BFSL030040
C31724G07	B3005	BFSL030055
C31724G39	B3027	BFSL030063
C31724G43	B3030	BFSL030070
C31724G08	B3006	BFSL030094
C31724G40	B3028	BFSL030110
C31724G09	B3007	BFSL030125
C31724G51	B3033	BFSL030144
C31724G01	B3001	BFSL030156

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31724G10	B3008	BFSL030171
C31724G11	B3009	BFSL030188
C31724G56	B3035	BFSL030203
C31724G34	B3024	BFSL030218
C31724G61	B3039	BFSL030250
C31724G41	B3029	BFSL030281
C31724G76	B3052	BFSL030296
C31724G12	B3010	BFSL040111
C31724G82	B3068	BFSL040125
C31724G73	B3049	BFSL045033
C31724G74	B3050	BFSL045050
C31724G02	B3002	BFSL045055
C31724G03	B3003	BFSL045070
C31724G13	B3011	BFSL045094
C31724G54	B3034	BFSL045110
C31724G04	B3004	BFSL045125
C31724G37	B3026	BFSL045156
C31724G50	B3032	BFSL045171
C31724G78	B3053	BFSL045188
C31724G58	B3037	BFSL045250
C31724G83	B3069	BFSL045288
C31724G62	B3040	BFSL057250
C31724G63	B3041	BFSL060028
C31724G65	B3042	BFSL060031
C31724G47	B3031	BFSL060040
C31724G32	B3022	BFSL060050
C31724G66	B3043	BFSL060050
C31724G14	B3012	BFSL060055
C31724G33	B3023	BFSL060070
C31724G81	B3066	BFSL060079
C31724G68	B3045	BFSL060086
C31724G15	B3013	BFSL060094
C31724G57	B3036	BFSL060109
C31724G69	B3046	BFSL060118
C31724G16	B3014	BFSL060125
C31724G17	B3015	BFSL060156
C31724G70	B3047	BFSL060188
C31724G71	B3048	BFSL070033
C31969G03	B1082	BFSL070125
C31969G02	B1081	BFSL080055

Parts Cross Reference

C31969G01 - C31726G08

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31969G01	B6003	BFSL080063
C31724G18	B3016	BFSL082090
C31724G21	B3018	BFSL090078
C31724G19	B3017	BFSL090111
C29478G72A	B2070	BTCA028
C29478G22A	B2065	BTCA033
C29478G06A	B2063	BTCA040
C29478G77A	B2071	BTCA046
C29478G79A	B2072	BTCA047
C29478G20A	B2064	BTCA055
C29478G53A	B2069	BTCA070
C29478G48A	B2068	BTCA078
C29478G28A	B2066	BTCA094
C29478G31A	B2067	BTCA125
C29478G72	B2056	BTCS028
C29478G22	B2021	BTCS033
C29478G06	B2005	BTCS040
C29478G77	B2062	BTCS046
C29478G20	B2019	BTCS055
C29478G53	B2040	BTCS070
C29478G48	B2037	BTCS078
C29478G28	B2025	BTCS094
C29478G31	B2026	BTCS125
B31377G01	B0001	BTDA023
B31377G02	B0002	BTDA028
B31377G03	B0003	BTDA033
B31377G04	B0004	BTDA040
B31377G05	B0005	BTDA055
C14506GP72A	B1076	BTKA028
C14506GP22A	B1071	BTKA033
C14506GP6A	B1069	BTKA040
C14506GP77A	B1077	BTKA046
C14506GP79A	B1078	BTKA047
C14506GP20A	B1070	BTKA055
C14506GP53A	B1075	BTKA070
C14506GP48A	B1074	BTKA078
C14506GP28A	B1072	BTKA094
C14506GP31A	B1073	BTKA125
C14506GP72	B1054	BTKS028
C14506GP22	B1015	BTKS033

Part Number	OLD Nozzle Code	NEW Nozzle Code
C14506GP6	B1041	BTKS040
C14506GP77	B1061	BTKS046
C14506GP79	B1065	BTKS047
C14506GP20	B1013	BTKS055
C14506GP53	B1036	BTKS070
C14506GP48	B1033	BTKS078
C14506GP31	B1021	BTKS125
B31377G52	B0008	BTRA018
B31377G55	B0007	BTRA033
B31377G57	B0010	BTRA035
B31377G50	B0006	BTRA040
B31377G56	B0009	BTRA055
C29478G33A	B2079	BZAH060070
C29478G25	B2022	BZSH015040
C29478G26	B2023	BZSH015055
C29478G27	B2024	BZSH015070
C29478G60	B2045	BZSH015093
C29478G75	B2059	BZSH015109
C29478G35	B2030	BZSH030040
C29478G07	B2006	BZSH030055
C29478G39	B2032	BZSH030063
C29478G43	B2035	BZSH030070
C29478G08	B2007	BZSH030094
C29478G40	B2033	BZSH030110
C29478G09	B2008	BZSH030125
C29478G51	B2039	BZSH030144
C29478G01	B2001	BZSH030156
C29478G10	B2009	BZSH030171
C29478G11	B2010	BZSH030188
C29478G56	B2042	BZSH030203
C29478G34	B2029	BZSH030218
C29478G61	B2046	BZSH030250
C29478G41	B2034	BZSH030281
C29478G76	B2060	BZSH030296
C29478G12	B2011	BZSH040111
C29478G82	B2077	BZSH040125
C29478G73	B2057	BZSH045033
C29478G74	B2058	BZSH045050
C29478G02	B2002	BZSH045055
C29478G03	B2003	BZSH045070

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29478G13	B2012	BZSH045094
C29478G54	B2041	BZSH045110
C29478G04	B2004	BZSH045125
C29478G37	B2031	BZSH045156
C29478G50	B2038	BZSH045171
C29478G78	B2061	BZSH045188
C29478G58	B2044	BZSH045250
C29478G83	B2078	BZSH045288
C29478G62	B2047	BZSH057250
C29478G63	B2048	BZSH060028
C29478G65	B2049	BZSH060031
C29478G47	B2036	BZSH060040
C29478G32	B2027	BZSH060050
C29478G66	B2050	BZSH060050
C29478G14	B2013	BZSH060055
C29478G67	B2051	BZSH060062
C29478G33	B2028	BZSH060070
C29478G80	B2073	BZSH060079
C29478G81	B2076	BZSH060079
C29478G68	B2052	BZSH060086
C29478G15	B2014	BZSH060094
C29478G57	B2043	BZSH060109
C29478G69	B2053	BZSH060118
C29478G16	B2015	BZSH060125
C29478G17	B2016	BZSH060156
C29478G70	B2054	BZSH060188
C29478G71	B2055	BZSH070033
C29478G18	B2017	BZSH082090
C29478G21	B2020	BZSH090078
C29478G19	B2018	BZSH090111
C31726G25	B4019	BZSL015040
C31726G26	B4020	BZSL015055
C31726G27	B4021	BZSL015070
C31726G60	B4038	BZSL015093
C31726G75	B4051	BZSL015109
C31726G35	B4025	BZSL030040
C31726G07	B4005	BZSL030055
C31726G39	B4027	BZSL030063
C31726G43	B4030	BZSL030070
C31726G08	B4006	BZSL030094

Parts Cross Reference

C31726G40 - B31658G09

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31726G40	B4028	BZSL030110
C31726G09	B4007	BZSL030125
C31726G51	B4033	BZSL030144
C31726G01	B4001	BZSL030156
C31726G10	B4008	BZSL030171
C31726G11	B4009	BZSL030188
C31726G56	B4035	BZSL030203
C31726G34	B4024	BZSL030218
C31726G61	B4039	BZSL030250
C31726G41	B4029	BZSL030281
C31726G76	B4052	BZSL030296
C31726G12	B4010	BZSL040111
C31726G82	B4064	BZSL040125
C31726G73	B4049	BZSL045033
C31726G74	B4050	BZSL045050
C31726G02	B4002	BZSL045055
C31726G03	B4003	BZSL045070
C31726G13	B4011	BZSL045094
C31726G54	B4034	BZSL045110
C31726G04	B4004	BZSL045125
C31726G37	B4026	BZSL045156
C31726G50	B4032	BZSL045171
C31726G78	B4053	BZSL045188
C31726G58	B4037	BZSL045250
C31726G83	B4065	BZSL045288
C31726G62	B4040	BZSL057250
C31726G63	B4041	BZSL060028
C31726G65	B4042	BZSL060031
C31726G47	B4031	BZSL060040
C31726G32	B4022	BZSL060050
C31726G66	B4043	BZSL060050
C31726G14	B4012	BZSL060055
C31726G33	B4023	BZSL060070
C31726G80	B4062	BZSL060079
C31726G81	B4063	BZSL060079
C31726G68	B4045	BZSL060086
C31726G15	B4013	BZSL060094
C31726G57	B4036	BZSL060109
C31726G69	B4046	BZSL060118
C31726G16	B4014	BZSL060125

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31726G17	B4015	BZSL060156
C31726G70	B4047	BZSL060188
C31726G71	B4048	BZSL070033
C31726G18	B4016	BZSL082090
C31726G21	B4018	BZSL090078
C31726G19	B4017	BZSL090111
123E3-040-15	4B (E3)	DFS015040
123E3-055-15	5B (E3)	DFS015055
123E3-070-15	6B (E3)	DFS015070
123E3-093-15	7B (E3)	DFS015093
123E3-156-15	9B (E3)	DFS015156
123E3-250-15	14B (E3)	DFS015250
123E3-265-15	26B (E3)	DFS015265
123E3-028-30	2C (E3)	DFS030028
123E3-033-30	3C (E3)	DFS030033
123E3-040-30	4C (E3)	DFS030040
123E3-055-30	5C (E3)	DFS030055
123E3-070-30	6C (E3)	DFS030070
123E3-093-30	7C (E3)	DFS030093
123E3-125-30	8C (E3)	DFS030125
123E3-156-30	9C (E3)	DFS030156
123E3-180-30		DFS030180
123E3-187-30	10C (E3)	DFS030187
123E3-191-30	16C (E3)	DFS030191
123E3-219-30	11C (E3)	DFS030219
123E3-250-30	14C (E3)	DFS030250
123E3-265-30	26C (E3)	DFS030265
123E3-172-40	49G (E3)	DFS040172
123E3-028-45	2D (E3)	DFS045028
123E3-033-45	3D (E3)	DFS045033
123E3-040-45	4D (E3)	DFS045040
123E3-055-45	5D (E3)	DFS045055
123E3-070-45	6D (E3)	DFS045070
123E3-093-45	7D (E3)	DFS045093
123E3-125-45	8D (E3)	DFS045125
123E3-156-45	9D (E3)	DFS045156
123E3-187-45	10D (E3)	DFS045187
123E3-219-45	11D (E3)	DFS045219
123E3-028-60	2E (E3)	DFS060028
123E3-033-60	3E (E3)	DFS060033

Part Number	OLD Nozzle Code	NEW Nozzle Code
123E3-040-60	4E (E3)	DFS060040
123E3-047-60		DFS060047
123E3-050-60		DFS060050
123E3-054-60	5EL (E3)	DFS060054
123E3-055-60	5E (E3)	DFS060055
123E3-059-60	21E (E3)	DFS060059
123E3-070-60	6E (E3)	DFS060070
123E3-079-60	22E (E3)	DFS060079
123E3-093-60	7E (E3)	DFS060093
123E3-109-60	24E (E3)	DFS060109
123E3-125-60	8E (E3)	DFS060125
123E3-156-60	9E (E3)	DFS060156
123E3-173-60	65E (E3)	DFS060173
123E3-219-60		DFS060219
123E3-116-65		DFS065116
123E3-125-80		DFS080125
123E3-016-90	15F (E3)	DFS090016
123E3-022-90	59F (E3)	DFS090022
123E3-028-90	2F (E3)	DFS090028
123E3-033-90	3F (E3)	DFS090033
123E3-040-90	4F (E3)	DFS090040
123E3-055-90	5F (E3)	DFS090055
123E3-070-90	6F (E3)	DFS090070
123E3-080-90		DFS090080
123E3-093-90	7F (E3)	DFS090093
123E3-125-90	8F (E3)	DFS090125
123E3-156-90	9F (E3)	DFS090156
123E3-062-95		DFS095062
123E3-055-100	5H (E3)	DFS100055
123E3-028-120	2N (E3)	DFS120028
B31658G01		DJDS023
B31658G01	D1026	DJDS023
B31658G06		DJDS025
B31658G02		DJDS028
B31658G02	D1027	DJDS028
B31658G07		DJDS030
B31658G03		DJDS033
B31658G03	D1028	DJDS033
B31658G08		DJDS035
B31658G09		DJDS037

Parts Cross Reference

B31658G04 - A30136G04

Part Number	OLD Nozzle Code	NEW Nozzle Code
B31658G04		DJDS040
B31658G04	D1029	DJDS040
B31658G10		DJDS042
B31658G11		DJDS045
B31658G12		DJDS050
B31658G05		DJDS055
B31658G05	D1030	DJDS055
B31658G13		DJDS060
B31658G14		DJDS070
B31658G15		DJDS080
B31658G71		DJPS005
B31658G89		DJPS007
B31658G77		DJPS008
B31658G70		DJPS010
B31658G88		DJPS011
B31658G83		DJPS012
B31658G82		DJPS015
B31658G84		DJPS016
B31658G72		DJPS018
B31658G81		DJPS020
B31658G85		DJPS024
B31658G79		DJPS025
B31658G74		DJPS028
B31658G80		DJPS030
B31658G86		DJPS032
B31658G76		DJPS033
B31658G78		DJPS035
B31658G73		DJPS040
B31658G87		DJPS048
B31658G75		DJPS055
B31658G30		DJRS005
B31658G49		DJRS007
B31658G37		DJRS008
B31658G31		DJRS010
B31658G48		DJRS011
B31658G43		DJRS012
B31658G42		DJRS015
B31658G44		DJRS016
B31658G32		DJRS018
B31658G41		DJRS020

Part Number	OLD Nozzle Code	NEW Nozzle Code
B31658G45		DJRS024
B31658G39		DJRS025
B31658G33		DJRS028
B31658G40		DJRS030
B31658G46		DJRS032
B31658G35		DJRS033
B31658G38		DJRS035
B31658G34		DJRS040
B31658G34	D1037	DJRS040
B31658G47		DJRS048
B31658G36		DJRS055
123E5-010	18 (E5)	DJSS010
123E5-014	11 (E5)	DJSS014
123E5-018		DJSS018
123E5-022		DJSS022
123E5-028	2 (E5)	DJSS028
123E5-033	3 (E5)	DJSS033
123E5-040	4 (E5)	DJSS040
123E5-055	5 (E5)	DJSS055
123E5-070	6 (E5)	DJSS070
123E5-073		DJSS073
123E5-076		DJSS076
123E5-093	7 (E5)	DJSS093
123E5-098		DJSS098
123E5-109		DJSS109
123E5-125	8 (E5)	DJSS125
123E5-156	9 (E5)	DJSS156
123E5-179		DJSS179
123E5-180		DJSS180
123E5-187	10 (E5)	DJSS187
123E5-191		DJSS191
123E5-219		DJSS219
123E5-250		DJSS250
L997-100-000		DLS000000
S997-134-1		DLS000031
S997-134-6		DLS000031
S997-134-2		DLS000040
S997-134-7		DLS000040
S997-134-3		DLS000062
S997-134-8		DLS000062

Part Number	OLD Nozzle Code	NEW Nozzle Code
S997-134-4		DLS000093
S997-134-9		DLS000093
S997-134-10		DLS000125
S997-134-5		DLS000125
L997-101-040	4C (L997)	DLS030040
L997-101-055		DLS030055
L997-101-062		DLS030062
L997-101-094		DLS030094
L997-101-125		DLS030125
L997-101-135		DLS030135
L997-101-219		DLS030219
L997-100-031	23E (L997)	DLS060031
L997-100-040	4E (L997)	DLS060040
L997-100-055		DLS060055
L997-100-062	20E (L997)	DLS060062
L997-100-093	7E (L997)	DLS060093
L997-100-118	37E (L997)	DLS060118
L997-100-125	8E (L997)	DLS060125
L997-100-156	9E (L997)	DLS060156
L997-101-156	9C (L997)	DLS060156
L997-100-187	10E (L997)	DLS060187
L997-100-219	11E (L997)	DLS060219
C37446G01		DLS080031
C37446G02		DLS080040
C37446G03		DLS080062
C37446G04	7R (C37446)	DLS080093
C37446G05	37R (C37446)	DLS080118
C37446G06		DLS080125
C37446G07		DLS080156
C33630G01	23F (C33630)	DLS090031
C33630G02	4F (C33630)	DLS090040
C33630G03	20F (C33630)	DLS090062
C33630G04	45F (C33630)	DLS090094
C33630G06	8F (C33630)	DLS090125
C33630G07	9F (C33630)	DLS090156
C33630G05	37F (C33630)	DLS0909118
A30136G01		DSS000028
A30136G02		DSS000033
A30136G03		DSS000040
A30136G04		DSS000055

Parts Cross Reference

A30136G05 - B29899G64

Part Number	OLD Nozzle Code	NEW Nozzle Code
A30136G05		DSS000070
A30136G06		DSS000093
A30136G07		DSS000125
A30136G08		DSS000156
A30136G09		DSS000187
C37576G09		DSS015040
C37576G14		DSS015055
C37576G19		DSS015070
C37576G24		DSS015093
C37576G29		DSS015125
C37576G34		DSS015156
C37576G39		DSS015187
C37576G01		DSS030028
C37576G05		DSS030033
C37576G10		DSS030040
C37576G15		DSS030055
C37576G20		DSS030070
C37576G25		DSS030093
C37576G30		DSS030125
C37576G35		DSS030156
C37576G40		DSS030187
C37576G02		DSS045028
C37576G06		DSS045033
C37576G11		DSS045040
C37576G16		DSS045055
C37576G21		DSS045070
C37576G26		DSS045093
C37576G31		DSS045125
C37576G36		DSS045156
C37576G41		DSS045187
C37576G03		DSS060028
C37576G07		DSS060033
C37576G12		DSS060040
C37576G17		DSS060055
C37576G22		DSS060070
C37576G27		DSS060093
C37576G32		DSS060125
C37576G37		DSS060156
C37576G42		DSS060187
C37576G04		DSS080028

Part Number	OLD Nozzle Code	NEW Nozzle Code
C37576G08		DSS080033
C37576G13		DSS080040
C37576G18		DSS080055
C37576G23		DSS080070
C37576G28		DSS080093
C37576G33		DSS080125
C37576G38		DSS080156
C37576G43		DSS080187
B31071G02	E1125	FF1/2HS120209
B31071G04	E1127	FF1/2HS120221
B31071G06	E1129	FF1/2HS120238
B31071G08	E1131	FF1/2HS120256
B31071G10	E1133	FF1/2HS120281
B31071G12	E1135	FF1/2HS120297
B31071G14	E1215	FF1/2HS120312
B31071G01	E1124	FF1/2LS120209
B31071G03	E1126	FF1/2LS120221
B31071G05	E1128	FF1/2LS120238
B31071G07	E1130	FF1/2LS120256
B31071G09	E1132	FF1/2LS120281
B31071G11	E1134	FF1/2LS120297
B31071G13	E1214	FF1/2LS120312
B29900G08	E1039	FF1/4HS120024
B29900G12	E1041	FF1/4HS120028
B29900G16	E1043	FF1/4HS120033
B29900G20	E1045	FF1/4HS120040
B29900G24	E1047	FF1/4HS120046
B29900G28	E1049	FF1/4HS120052
B29900G32	E1051	FF1/4HS120057
B29900G36	E1053	FF1/4HS120065
B29900G40	E1055	FF1/4HS120073
B29900G44	E1057	FF1/4HS120093
B29900G48	E1059	FF1/4HS120104
B29900G52	E1061	FF1/4HS120116
B29900G56	E1063	FF1/4HS120129
B29900G60	E1065	FF1/4HS120141
B29900G64	E1067	FF1/4HS120148
B29900G68	E1069	FF1/4HS120156
B29900G72	E1071	FF1/4HS120161
B29900G76	E1073	FF1/4HS120173

Part Number	OLD Nozzle Code	NEW Nozzle Code
B29900G80	E1075	FF1/4HS120180
B29900G84	E1077	FF1/4HS120187
B29900G88	E1079	FF1/4HS120219
B29900G07	E1038	FF1/4LS120024
B29900G11	E1040	FF1/4LS120028
B29900G15	E1042	FF1/4LS120033
B29900G19	E1044	FF1/4LS120040
B29900G23	E1046	FF1/4LS120046
B29900G27	E1048	FF1/4LS120052
B29900G31	E1050	FF1/4LS120057
B29900G35	E1052	FF1/4LS120065
B29900G39	E1054	FF1/4LS120073
B29900G43	E1056	FF1/4LS120093
B29900G47	E1058	FF1/4LS120104
B29900G51	E1060	FF1/4LS120116
B29900G55	E1062	FF1/4LS120129
B29900G59	E1064	FF1/4LS120141
B29900G63	E1066	FF1/4LS120148
B29900G67	E1068	FF1/4LS120156
B29900G71	E1070	FF1/4LS120161
B29900G75	E1072	FF1/4LS120173
B29900G79	E1074	FF1/4LS120180
B29900G83	E1076	FF1/4LS120187
B29900G87	E1078	FF1/4LS120219
B36344G32	E7046	FF1/8HS090046
B29899G08	E1004	FF1/8HS120024
B29899G12	E1006	FF1/8HS120028
B29899G16	E1008	FF1/8HS120033
B29899G20	E1010	FF1/8HS120040
B29899G24	E1012	FF1/8HS120046
B29899G28	E1014	FF1/8HS120052
B29899G32	E1016	FF1/8HS120057
B29899G36	E1018	FF1/8HS120065
B29899G40	E1020	FF1/8HS120073
B29899G44	E1022	FF1/8HS120093
B29899G48	E1024	FF1/8HS120104
B29899G52	E1026	FF1/8HS120116
B29899G56	E1028	FF1/8HS120129
B29899G60	E1030	FF1/8HS120141
B29899G64	E1032	FF1/8HS120148

Parts Cross Reference

B29899G68 - B28925G15

Part Number	OLD Nozzle Code	NEW Nozzle Code
B29899G68	E1034	FF1/8LS120156
B36344G31	E7045	FF1/8LS090046
B29899G07	E1003	FF1/8LS120024
B29899G11	E1005	FF1/8LS120028
B29899G15	E1007	FF1/8LS120033
B29899G19	E1009	FF1/8LS120040
B29899G23	E1011	FF1/8LS120046
B29899G27	E1013	FF1/8LS120052
B29899G31	E1015	FF1/8LS120057
B29899G35	E1017	FF1/8LS120065
B29899G39	E1019	FF1/8LS120073
B29899G43	E1021	FF1/8LS120093
B29899G47	E1023	FF1/8LS120104
B29899G51	E1025	FF1/8LS120116
B29899G55	E1027	FF1/8LS120129
B29899G59	E1029	FF1/8LS120141
B29899G63	E1031	FF1/8LS120148
B29899G67	E1033	FF1/8LS120156
B33404G12	E8006	FF2BHS120028
B33404G20	E8008	FF2BHS120040
B33404G32	E8010	FF2BHS120057
B33404G36	E8002	FF2BHS120065
B33404G44	E8012	FF2BHS120093
B33404G56	E8014	FF2BHS120129
B33404G11	E8005	FF2BLS120028
B33404G19	E8007	FF2BLS120040
B33404G31	E8009	FF2BLS120057
B33404G35	E8001	FF2BLS120065
B33404G43	E8011	FF2BLS120093
B33404G55	E8013	FF2BLS120129
B33405G12	E8016	FF4BHS120028
B33405G20	E8018	FF4BHS120040
B33405G32	E8020	FF4BHS120057
B33405G36	E8004	FF4BHS120065
B33405G44	E8022	FF4BHS120093
B33405G56	E8024	FF4BHS120129
B33405G68	E8026	FF4BHS120156
B33405G11	E8015	FF4BLS120028
B33405G19	E8017	FF4BLS120040
B33405G31	E8019	FF4BLS120057

Part Number	OLD Nozzle Code	NEW Nozzle Code
B33405G35	E8003	FF4BLS120065
B33405G43	E8021	FF4BLS120093
B33405G55	E8023	FF4BLS120129
B33405G67	E8025	FF4BLS120156
B32884G28	E7014	FF9UHS120046
B32884G27	E7013	FF9ULS120046
B31002G04	E1081	FHSH120014
B31002G08	E1083	FHSH120024
B31002G12	E1085	FHSH120028
B31002G16	E1087	FHSH120033
B31002G20	E1089	FHSH120040
B31002G24	E1091	FHSH120046
B31002G28	E1093	FHSH120052
B31002G32	E1095	FHSH120057
B31002G36	E1097	FHSH120065
B31002G40	E1099	FHSH120073
B31002G44	E1101	FHSH120093
B31002G48	E1103	FHSH120104
B31002G52	E1105	FHSH120116
B31002G56	E1107	FHSH120129
B31002G60	E1109	FHSH120141
B31002G64	E1111	FHSH120148
B31002G68	E1113	FHSH120156
B31002G72	E1115	FHSH120161
B31002G76	E1117	FHSH120173
B31002G80	E1119	FHSH120180
B31002G84	E1121	FHSH120187
B31002G88	E1123	FHSH120219
B31002G03	E1080	FHSL120014
B31002G07	E1082	FHSL120024
B31002G11	E1084	FHSL120028
B31002G15	E1086	FHSL120033
B31002G19	E1088	FHSL120040
B31002G23	E1090	FHSL120046
B31002G27	E1092	FHSL120052
B31002G31	E1094	FHSL120057
B31002G35	E1096	FHSL120065
B31002G39	E1098	FHSL120073
B31002G43	E1100	FHSL120093
B31002G47	E1102	FHSL120104

Part Number	OLD Nozzle Code	NEW Nozzle Code
B31002G51	E1104	FHSL120116
B31002G55	E1106	FHSL120129
B31002G59	E1108	FHSL120141
B31002G63	E1110	FHSL120148
B31002G67	E1112	FHSL120156
B31002G71	E1114	FHSL120161
B31002G75	E1116	FHSL120173
B31002G79	E1118	FHSL120180
B31002G83	E1120	FHSL120187
B31002G87	E1122	FHSL120219
C30130G06	A2006	FL1/2S015188
C30130G07	A2007	FL1/2S015203
C30130G08	A2008	FL1/2S015219
C30130G09	A2009	FL1/2S015234
C30130G01	A2001	FL1/2S035172
C30130G02	A2002	FL1/2S035188
C30130G03	A2003	FL1/2S035203
C30130G04	A2004	FL1/2S035219
C30130G05	A2005	FL1/2S035234
C30130G10	A2010	FL1/2S040297
C31439G04	A1007	FL1/4S015078
C31439G05	A1008	FL1/4S015109
C31439G03	A1006	FL1/4S025140
C31439G01	A1004	FL1/4S035078
C29901G02	A1002	FL1/4S050109
C29901G04	A1003	FL1/4S050140
B28925G06	A0022	FL3/8S035109
B28925G07	A0023	FL3/8S035125
B28925G08	A0024	FL3/8S035141
B28925G09	A0025	FL3/8S035156
B28925G20	A0036	FL3/8S035172
B28925G10	A0026	FL3/8S035188
B28925G02	A0018	FL3/8S040120
B28925G01	A0017	FL3/8S040140
B28925G03	A0019	FL3/8S040156
B28925G11	A0027	FL3/8S040172
B28925G12	A0028	FL3/8S040188
B28925G13	A0029	FL3/8S040203
B28925G14	A0030	FL3/8S040219
B28925G15	A0031	FL3/8S040234

Parts Cross Reference

C29901G03 - N6902

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29901G03	A0010	FL3/8S050109
C29901G05	A0011	FL3/8S050140
C29901G06	A0012	FL3/8S050187
C29901G07	A0013	FL3/8S050234
C29901G08	A0014	FL3/8S050265
C29901G09	A0015	FL3/8S050296
C29901G10	A0016	FL3/8S050328
B36837G38	C2025	JJ1/4R0A028
B36837G40	C2026	JJ1/4R0A033
B36837G42	C2027	JJ1/4R0A040
B36837G43	C2028	JJ1/4R0A055
B36674G38	C2029	JJ1/8R0A028
B36674G41	C2030	JJ1/8R0A035
B36828G028R	C8000	JJ4BR0A028
123Z023	C2001	JJ9UD0A023
123Z028	C2002	JJ9UD0A028
123Z033	C2003	JJ9UD0A033
123Z040	C2004	JJ9UD0A040
123Z055	C2005	JJ9UD0A055
1123JGP4	C0011	JJ9UD1A040
1123JGP5	C0012	JJ9UD1A055
1123JGP6	C0013	JJ9UD2A033
1123JGP13	C0008	JJ9UD2A040
1123JGP12	C0007	JJ9UD4A028
1123JGP14	C0009	JJ9UD4A055
A25855GP1	C2017	JJ9UP0A005HP
B35907G008	C2022	JJ9UP0A008
A25855GP3	C2019	JJ9UP0A008HP
B35907G010	C2012	JJ9UP0A010
A25855	C2016	JJ9UP0A010HP
B35907G028	C2013	JJ9UP0A028
B35907G033	C2014	JJ9UP0A033
B35907G040	C2010	JJ9UP0A040
B35907G055	C2011	JJ9UP0A055
A25855GP2	C2018	JJ9UR0A005HP
B36288G008	C2021	JJ9UR0A008
B36288G028	C2023	JJ9UR0A028
B36288G033	C2020	JJ9UR0A033
B36288G035	C2031	JJ9UR0A035
B36288G040	C2015	JJ9UR0A040

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36288G055	C2024	JJ9UR0A055
B30986G07	C1036	JN4P0S028
B30986G09	C1037	JN4P0S038
B30986G04	C1018	JN4P0S055
B36132G13	C1026	JN9U0A010
B36132G08	C1024	JN9U0A014
B36132G14	C1027	JN9U0A016
B36132G07	C1023	JN9U0A028
B36132G06	C1022	JN9U0A033
B36132G09	C1025	JN9U0A038
B36132G05	C1019	JN9U0A040
B36132G17	C1030	JN9U0A047
B36132G16	C1029	JN9U0A052
B36132G04	C1021	JN9U0A055
B36132G15	C1028	JN9U0A060
B36132G03	C1020	JN9U0A070
123HSGP13	C1014	JN9U0S010
123HSGP8	C1012	JN9U0S014
123HSGP14	C1015	JN9U0S016
123HSGP18	C1035	JN9U0S020
123HSGP7	C1011	JN9U0S028
123HSGP6	C1010	JN9U0S033
123HSGP9	C1013	JN9U0S038
123HSGP5	C1009	JN9U0S040
123HSGP16	C1017	JN9U0S052
123HSGP4	C1007	JN9U0S055
123HSGP15	C1016	JN9U0S060
123HSGP3	C1006	JN9U0S070
123HSGP2	C1005	JN9U0S093
123HSGP1	C1001	JN9U0S125
123HSGP12	C1004	JN9U0S129
123HSGP10	C1002	JN9U0S156
123HSGP11	C1003	JN9U0S250
B36478G040	C0016	JN9U1A040
B36478G055	C0017	JN9U1A055
1123-5GP8	C0014	JN9U1S014
1123-5GP6	C0006	JN9U1S033
1123-5GP5	C0005	JN9U1S040
1123-5GP4	C0004	JN9U1S055
1123-2GP5	C0002	JN9U2S040

Part Number	OLD Nozzle Code	NEW Nozzle Code
1123-2GP5	C0002	JN9U2S040
1123-2GP4	C0001	JN9U2S055
1123-2GP4	C0001	JN9U2S055
B4-3031-34	223-1070	PN18USE120063
M4-548-41	41 (M4)	PN18USV000037
M4-548-26	26 (M4)	PN18USV000040
M4-548-39	39 (M4)	PN18USV000047
M4-548-50	50 (M4)	PN18USV000047
N6918	50 (N69)	PN18USV000047
N6909	24 (N69)	PN18USV000087
M4-256-53	53 (M4)	PN18USV000099
M4-1568-37	37 (M4)	PN18USV015066
N6923	37 (N69)	PN18USV015066
M4-256-22	22 (M4)	PN18USV030095
M4-256-19	19 (M4)	PN18USV030099
M4-256-20	20 (M4)	PN18USV040090
N6908	20 (N69)	PN18USV040090
M4-256-21	21 (M4)	PN18USV040093
N6907	18 (N69)	PN18USV040097
M4-256-17	17 (M4)	PN18USV040114
M4-548-30	30 (M4)	PN18USV040114
N6924	17 (N69)	PN18USV040114
N6961	15 (N69)	PN18USV040147
M4-256-10	10 (M4)	PN18USV045104
M4-256-13	13 (M4)	PN18USV045131
M4-256-11	11 (M4)	PN18USV045166
M4-256-29	29 (M4)	PN18USV045182
M4-256-07	7 (M4)	PN18USV060104
M4-256-08	8 (M4)	PN18USV060145
M4-256-09	9 (M4)	PN18USV060161
M4-256-49	49 (M4)	PN18USV080083
M4-256-03	3 (M4)	PN18USV080107
N6903	3 (N69)	PN18USV080107
N6904	4 (N69)	PN18USV080131
M4-256-05	5 (M4)	PN18USV080145
N6905	5 (N69)	PN18USV080145
N6906	6 (N69)	PN18USV080168
M4-256-40	40 (M4)	PN18USV080194
M4-256-58	58 (M4)	PN18USV100080
N6902	2 (N69)	PN18USV100080

Parts Cross Reference

M4-256-51 - C30033G92

Part Number	OLD Nozzle Code	NEW Nozzle Code
M4-256-51	51 (M4)	PN18USV100098
M4-256-42	42 (M4)	PN18USV100119
N6913	34 (N69)	PN18USV120063
M4-256-28	28 (M4)	PN18USV120125
N6912	28 (N69)	PN18USV120125
M4-256-27	27 (M4)	PN18USV130091
N6911	27 (N69)	PN18USV130091
M4-256-54	54 (M4)	PN18USV130147
B10738	A	PPS000040
B10955	U	PPS000055
B24546	W	PPS0100099
B10745	L	PPS012080
B26144	Z	PPS015040
B10747	B	PPS030094
B10753	M	PPS030133
B10754	N	PPS030157
B10739	C	PPS040094
B10748	E	PPS045050
B24734	X	PPS045060
B10746	F	PPS045109
B10742	G	PPS045125
B10755	P	PPS045131
B10756	Q	PPS045155
B10743	H	PPS060080
B10757	I	PPS060109
B10758	R	PPS077070
B10744	J	PPS090078
B10741	D	PPS090099
B10740	K	PPS100078
C28560G26	26 (C28560)	PT18USV000040
C28560G50	50 (C28560)	PT18USV000042
C28560G23	23 (C28560)	PT18USV025085
C28560G19	52 (C28560)	PT18USV030099
C28560G38	38 (C28560)	PT18USV030163
C28560G20	20 (C28560)	PT18USV040090
C28560G18	18 (C28560)	PT18USV040097
C28560G17	17 (C28560)	PT18USV040114
C28560G15	15 (C28560)	PT18USV040147
C28560G13	13 (C28560)	PT18USV045131
C28560G12	12 (C28560)	PT18USV050145

Part Number	OLD Nozzle Code	NEW Nozzle Code
C28560G07	7 (C28560)	PT18USV060104
C28560G08	8 (C28560)	PT18USV060145
C28560G03	3 (C28560)	PT18USV080107
C28560G04	4 (C28560)	PT18USV080131
C28560G05	5 (C28560)	PT18USV080145
C28560G40	40 (C28560)	PT18USV080194
C28560G02	2 (C28560)	PT18USV100080
C28560G51	51 (C28560)	PT18USV100098
C28560G28	28 (C28560)	PT18USV120125
C37334G02	F4196	QTS015036
C30033G163	F2080	QVS015011
C30033G164	F2081	QVS015013
C30033G165	F2082	QVS015015
C30033G166	F2083	QVS015018
C30033G167	F2084	QVS015021
C30033G168	F2085	QVS015026
C30033G169	F2086	QVS015031
C30033G170	F2088	QVS015036
C30033G171	F2089	QVS015040
C30033G172	F2090	QVS015043
C30033G173	F2091	QVS015052
C30033G174	F2092	QVS015055
C30033G175	F2093	QVS015057
C30033G176	F2094	QVS015062
C30033G177	F2095	QVS015070
C30033G178	F2096	QVS015072
C30033G179	F2097	QVS015078
C30033G180	F2099	QVS015093
C30033G181	F2100	QVS015109
C30033G139	F2053	QVS025011
C30033G140	F2055	QVS025013
C30033G141	F2056	QVS025015
C30033G142	F2057	QVS025018
C30033G143	F2058	QVS025021
C30033G144	F2059	QVS025026
C30033G145	F2060	QVS025031
C30033G146	F2061	QVS025036
C30033G147	F2062	QVS025040
C30033G148	F2063	QVS025043
C30033G149	F2064	QVS025052

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30033G150	F2066	QVS025055
C30033G151	F2067	QVS025057
C30033G152	F2068	QVS025062
C30033G153	F2069	QVS025070
C30033G154	F2070	QVS025072
C30033G155	F2071	QVS025078
C30033G156	F2072	QVS025093
C30033G157	F2073	QVS025109
C30033G158	F2074	QVS025141
C30033G159	F2075	QVS025156
C30033G160	F2077	QVS025172
C30033G161	F2078	QVS025187
C30033G162	F2079	QVS025203
C30033G202	F2186	QVS035033
C30033G115	F2027	QVS040011
C30033G116	F2028	QVS040013
C30033G117	F2029	QVS040015
C30033G118	F2030	QVS040018
C30033G119	F2031	QVS040021
C30033G120	F2033	QVS040026
C30033G121	F2034	QVS040031
C30033G122	F2035	QVS040036
C30033G123	F2036	QVS040040
C30033G124	F2037	QVS040043
C30033G125	F2038	QVS040052
C30033G126	F2039	QVS040055
C30033G127	F2040	QVS040057
C30033G128	F2041	QVS040062
C30033G129	F2042	QVS040070
C30033G130	F2044	QVS040072
C30033G131	F2045	QVS040078
C30033G132	F2046	QVS040093
C30033G133	F2047	QVS040109
C30033G134	F2048	QVS040141
C30033G135	F2049	QVS040156
C30033G136	F2050	QVS040172
C30033G137	F2051	QVS040187
C30033G138	F2052	QVS040203
C30033G91	F2175	QVS050011
C30033G92	F2176	QVS050013

Parts Cross Reference

C30033G93 - C30022G08

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30033G93	F2177	QVS050015
C30033G94	F2178	QVS050018
C30033G95	F2179	QVS050021
C30033G96	F2180	QVS050026
C30033G97	F2181	QVS050031
C30033G98	F2182	QVS050036
C30033G99	F2183	QVS050040
C30033G100	F2011	QVS050043
C30033G101	F2012	QVS050052
C30033G102	F2013	QVS050055
C30033G103	F2014	QVS050057
C30033G104	F2015	QVS050062
C30033G105	F2016	QVS050070
C30033G106	F2017	QVS050072
C30033G107	F2018	QVS050078
C30033G108	F2019	QVS050093
C30033G109	F2020	QVS050109
C30033G110	F2022	QVS050141
C30033G111	F2023	QVS050156
C30033G112	F2024	QVS050172
C30033G113	F2025	QVS050187
C30033G114	F2026	QVS050203
C30033G67	F2151	QVS065011
C30033G68	F2152	QVS065013
C30033G69	F2153	QVS065015
C30033G70	F2154	QVS065018
C30033G71	F2155	QVS065021
C30033G72	F2156	QVS065026
C30033G201	F2185	QVS065028
C30033G73	F2157	QVS065031
C30033G74	F2158	QVS065036
C30033G75	F2159	QVS065040
C30033G76	F2160	QVS065043
C30033G77	F2161	QVS065052
C30033G78	F2162	QVS065055
C30033G79	F2163	QVS065057
C30033G80	F2164	QVS065062
C30033G81	F2165	QVS065070
C30033G82	F2166	QVS065072
C30033G83	F2167	QVS065078

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30033G84	F2168	QVS065093
C30033G85	F2169	QVS065109
C30033G86	F2170	QVS065141
C30033G87	F2171	QVS065156
C30033G88	F2172	QVS065172
C30033G89	F2173	QVS065187
C30033G90	F2174	QVS065203
C30033G55	F2139	QVS073012
C30033G56	F2140	QVS073016
C30033G57	F2141	QVS073022
C30033G58	F2142	QVS073028
C30033G59	F2143	QVS073032
C30033G60	F2144	QVS073040
C30033G61	F2145	QVS073045
C30033G62	F2146	QVS073051
C30033G63	F2147	QVS073056
C30033G64	F2148	QVS073065
C30033G65	F2149	QVS073072
C30033G66	F2150	QVS073078
C30033G34	F2118	QVS080018
C30033G35	F2119	QVS080021
C30033G36	F2120	QVS080026
C30033G37	F2121	QVS080031
C30033G38	F2122	QVS080036
C30033G39	F2123	QVS080040
C30033G40	F2124	QVS080043
C30033G41	F2125	QVS080052
C30033G42	F2126	QVS080055
C30033G43	F2127	QVS080057
C30033G44	F2128	QVS080062
C30033G45	F2129	QVS080070
C30033G46	F2130	QVS080072
C30033G47	F2131	QVS080078
C30033G48	F2132	QVS080093
C30033G49	F2133	QVS080109
C30033G50	F2134	QVS080141
C30033G51	F2135	QVS080156
C30033G52	F2136	QVS080172
C30033G53	F2137	QVS080187
C30033G54	F2138	QVS080203

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30033G203	F2189	QVS095022
C30033G15	F2065	QVS095026
C30033G16	F2076	QVS095031
C30033G17	F2087	QVS095036
C30033G18	F2098	QVS095040
C30033G19	F2103	QVS095043
C30033G20	F2104	QVS095052
C30033G21	F2105	QVS095055
C30033G22	F2106	QVS095057
C30033G23	F2107	QVS095062
C30033G24	F2108	QVS095070
C30033G25	F2109	QVS095072
C30033G26	F2110	QVS095078
C30033G27	F2111	QVS095093
C30033G28	F2112	QVS095109
C30033G29	F2113	QVS095141
C30033G30	F2114	QVS095156
C30033G31	F2115	QVS095172
C30033G32	F2116	QVS095187
C30033G33	F2117	QVS095203
C30033G200	F2184	QVS110022
C30033G01	F2001	QVS110026
C30033G02	F2002	QVS110031
C30033G204	F2190	QVS110032
C30033G03	F2003	QVS110036
C30033G04	F2004	QVS110036
C30033G05	F2005	QVS110043
C30033G06	F2006	QVS110052
C30033G07	F2007	QVS110055
C30033G08	F2008	QVS110057
C30033G09	F2009	QVS110062
C30033G10	F2010	QVS110070
C30033G11	F2021	QVS110072
C30033G12	F2032	QVS110078
C30033G13	F2043	QVS110093
C30033G14	F2054	QVS110109
C30022G02	C6002	SB1/41S010
C30022G04	C6004	SB1/41S014
C30022G06	C6006	SB1/41S020
C30022G08	C6008	SB1/41S028

Parts Cross Reference

C30022G10 - B36590G080

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30022G10	C6010	SB1/41S033
C30022G12	C6012	SB1/41S038
C30022G14	C6014	SB1/41S040
C30022G16	C6016	SB1/41S047
C30022G18	C6018	SB1/41S055
C30022G20	C6020	SB1/41S061
C30022G22	C6022	SB1/41S067
C30022G24	C6024	SB1/41S070
C30022G26	C6026	SB1/41S078
C30022G28	C6028	SB1/41S086
C30022G30	C6030	SB1/41S093
C30022G32	C6032	SB1/41S107
C30022G34	C6034	SB1/41S125
C30022G36	C6036	SB1/41S141
C30022G38	C6038	SB1/41S156
C30022G40	C6039	SB1/41S172
C30022G42	C6040	SB1/41S187
C30022G44	C6041	SB1/41S203
C30022G46	C6042	SB1/41S219
C35881G14	C6044	SB1/42S040
B29894G01	C6045	SB1/43S040
C30022G01	C6001	SB1/81S010
C30022G03	C6003	SB1/81S014
C30022G05	C6005	SB1/81S020
C30022G07	C6007	SB1/81S028
C30022G09	C6009	SB1/81S033
C30022G11	C6011	SB1/81S038
C30022G13	C6013	SB1/81S040
C30022G15	C6015	SB1/81S047
C30022G17	C6017	SB1/81S055
C30022G19	C6019	SB1/81S061
C30022G21	C6021	SB1/81S067
C30022G23	C6023	SB1/81S070
C30022G25	C6025	SB1/81S078
C30022G27	C6027	SB1/81S086
C30022G29	C6029	SB1/81S093
C30022G31	C6031	SB1/81S107
B35005	C6043	SB1/81S109
C30022G33	C6033	SB1/81S125
C30022G35	C6035	SB1/81S141

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30022G37	C6037	SB1/81S156
C35867G01	C7023	SB2B1S016
C35867G02	C7024	SB2B1S022
C35867G03	C7025	SB2B1S028
C35867G04	C7026	SB2B1S033
C35867G05	C7027	SB2B1S040
C35867G06	C7028	SB2B1S047
C35867G07	C7029	SB2B1S055
C35867G08	C7030	SB2B1S061
C35867G09	C7031	SB2B1S067
C35867G10	C7032	SB2B1S070
C35867G11	C7033	SB2B1S078
C35867G12	C7034	SB2B1S086
C35867G13	C7035	SB2B1S093
C35867G14	C7036	SB2B1S107
C35867G15	C7037	SB2B1S125
C35867G16	C7038	SB2B1S141
C35867G17	C7039	SB2B1S156
C35867G18	C7040	SB2B1S172
C35867G19	C7041	SB2B1S187
C35867G20	C7042	SB2B1S203
C35867G21	C7043	SB2B1S219
C35867G22	C7044	SB2B1S250
C30705G01	C7001	SB4B1S016
C30705G02	C7002	SB4B1S022
C30705G03	C7003	SB4B1S028
C30705G04	C7004	SB4B1S033
C30705G05	C7005	SB4B1S040
C30705G06	C7006	SB4B1S047
C30705G07	C7007	SB4B1S055
C30705G08	C7008	SB4B1S061
C30705G09	C7009	SB4B1S067
C30705G10	C7010	SB4B1S070
C30705G11	C7011	SB4B1S078
C30705G12	C7012	SB4B1S086
C30705G13	C7013	SB4B1S093
C30705G14	C7014	SB4B1S107
C30705G15	C7015	SB4B1S125
C30705G16	C7016	SB4B1S141
C30705G17	C7017	SB4B1S156

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30705G18	C7018	SB4B1S172
C30705G19	C7019	SB4B1S187
C30705G20	C7020	SB4B1S203
C30705G21	C7021	SB4B1S219
C30705G22	C7022	SB4B1S250
B30538G04	C5004	SB9U3S020
B30538G01	C5001	SB9U3S040
B30538G02	C5002	SB9U3S055
B30538G03	C5003	SB9U3S070
B30538G05	C5005	SB9U3S090
B36467G023C		TS1/8DNA023
B36590G023	D1046	TS1/8DNA023
B36467G025C		TS1/8DNA025
B36590G025	D1047	TS1/8DNA025
B36467G028C		TS1/8DNA028
B36590G028	D1048	TS1/8DNA028
B36467G030C		TS1/8DNA030
B36590G030		TS1/8DNA030
B36467G033C		TS1/8DNA033
B36590G033	D1049	TS1/8DNA033
B36467G035C		TS1/8DNA035
B36590G035		TS1/8DNA035
B36467G037C		TS1/8DNA037
B36590G037	D1050	TS1/8DNA037
B36467G040C		TS1/8DNA040
B36590G040	D1051	TS1/8DNA040
B36467G042C		TS1/8DNA042
B36590G042		TS1/8DNA042
B36467G045C		TS1/8DNA045
B36590G045		TS1/8DNA045
B36467G050C		TS1/8DNA050
B36590G050	D1052	TS1/8DNA050
B36467G055C		TS1/8DNA055
B36590G055	D1053	TS1/8DNA055
B36467G060C		TS1/8DNA060
B36590G060		TS1/8DNA060
B36467G070C		TS1/8DNA070
B36590G070	D1054	TS1/8DNA070
B36467G080C		TS1/8DNA080
B36590G080		TS1/8DNA080

Parts Cross Reference

B28253G3 - B36232G22

Part Number	OLD Nozzle Code	NEW Nozzle Code
B28253G3	D1009	TS1/8DNB023
B28253G7	D1061	TS1/8DNB025
B28253G1	D1007	TS1/8DNB028
B28253G08		TS1/8DNB030
B28253G4	D1010	TS1/8DNB033
B28253G09		TS1/8DNB035
B28253G10		TS1/8DNB037
B28253G2	D1008	TS1/8DNB040
B28253G11		TS1/8DNB042
B28253G12		TS1/8DNB045
B28253G13		TS1/8DNB050
B28253G5	D1011	TS1/8DNB055
B28253G14		TS1/8DNB060
B28253G15		TS1/8DNB070
B28253G16		TS1/8DNB080
B36467G005S		TS1/8PNA005
B36467G007S		TS1/8PNA007
B36467G008S		TS1/8PNA008
B36467G010S		TS1/8PNA010
B36467G011S		TS1/8PNA011
B36467G012S		TS1/8PNA012
B36467G015S		TS1/8PNA015
B36467G016S		TS1/8PNA016
B36467G018S		TS1/8PNA018
B36467G020S		TS1/8PNA020
B36467G024S		TS1/8PNA024
B36467G025S		TS1/8PNA025
B36467G028S		TS1/8PNA028
B36467G030S		TS1/8PNA030
B36467G032S		TS1/8PNA032
B36467G033S		TS1/8PNA033
B36467G035S		TS1/8PNA035
B36467G040S		TS1/8PNA040
B36467G048S		TS1/8PNA048
B36467G055S		TS1/8PNA055
B28253G6	D1012	TS1/8PNB010
B36467G005R		TS1/8RNA005
B36516G32	D1096	TS1/8RNA005
B37266G09	D1086	TS1/8RNA005005
B37266G20		TS1/8RNA006006

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36467G007R		TS1/8RNA007
B36516G50		TS1/8RNA007
B37266G21		TS1/8RNA007007
B36467G008R		TS1/8RNA008
B36516G38	D1102	TS1/8RNA008
B37266G01	D1079	TS1/8RNA008008
B36467G010R		TS1/8RNA010
B36516G31	D1095	TS1/8RNA010
B37266G10	D1087	TS1/8RNA010010
B36467G011R		TS1/8RNA011
B36516G49		TS1/8RNA011
B36467G012R		TS1/8RNA012
B36516G44	D1097	TS1/8RNA012
B37266G02	D1080	TS1/8RNA012012
B37266G18		TS1/8RNA014014
B36467G015R		TS1/8RNA015
B36516G43	D1062	TS1/8RNA015
B37266G11	D1088	TS1/8RNA015015
B36467G016R		TS1/8RNA016
B36516G45	D1098	TS1/8RNA016
B37266G03	D1081	TS1/8RNA016016
B36467G018R		TS1/8RNA018
B36516G33	D1076	TS1/8RNA018
B37266G12	D1089	TS1/8RNA018018
B36467G020R	D1064	TS1/8RNA020
B36516G42	D1059	TS1/8RNA020
B37266G04	D1082	TS1/8RNA020020
B36467G024R		TS1/8RNA024
B36516G46	D1099	TS1/8RNA024
B37266G05	D1083	TS1/8RNA024024
B36467G025R		TS1/8RNA025
B36516G40	D1057	TS1/8RNA025
B37266G08		TS1/8RNA025025
B36467G028R		TS1/8RNA028
B36516G35	D1056	TS1/8RNA028
B37266G06	D1084	TS1/8RNA028028
B36467G030R		TS1/8RNA030
B36516G41	D1058	TS1/8RNA030
B37266G13	D1090	TS1/8RNA030030
B36467G032R		TS1/8RNA032

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36516G47	D1100	TS1/8RNA032
B37266G07	D1085	TS1/8RNA032032
B36467G033R		TS1/8RNA033
B36516G37	D1042	TS1/8RNA033
B37266G14	D1091	TS1/8RNA033033
B36467G035R		TS1/8RNA035
B36516G39	D1043	TS1/8RNA035
B37266G15	D1092	TS1/8RNA035035
B36467G040R		TS1/8RNA040
B36516G34	D1055	TS1/8RNA040
B37266G16	D1093	TS1/8RNA040040
B36467G048R		TS1/8RNA048
B36516G48		TS1/8RNA048
B37266G19		TS1/8RNA050050
B36467G055R		TS1/8RNA055
B36516G36	D1101	TS1/8RNA055
B37266G17	D1094	TS1/8RNA055055
B28253G33	D1040	TS1/8RNB028
B28253G34	D1038	TS1/8RNB040
B36232G08		TS1/8SNA010
B36232G24		TS1/8SNA012
B36232G29		TS1/8SNA012012012
B36232G04		TS1/8SNA014
B36232G25		TS1/8SNA015
B36232G30		TS1/8SNA015015015
B36232G12		TS1/8SNA015020025
B36232G11		TS1/8SNA018018
B36232G16	D1039	TS1/8SNA020
B36232G09		TS1/8SNA020015
B36232G06		TS1/8SNA020020
B36232G14		TS1/8SNA023
B36232G05		TS1/8SNA023023
B36232G38		TS1/8SNA024
B36232G15	D1041	TS1/8SNA025
B36232G10		TS1/8SNA025020
B36232G39		TS1/8SNA025025
B36232G01		TS1/8SNA028
B36232G17	D1068	TS1/8SNA030
B36232G13		TS1/8SNA030030
B36232G22		TS1/8SNA032

Parts Cross Reference

B36232G03 - B39511G22

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36232G03	D1060	TS1/8SNA033
B36232G07		TS1/8SNA034015015
B36232G36		TS1/8SNA035035
B36232G23		TS1/8SNA036
B36232G02		TS1/8SNA040
B36232G19	D1077	TS1/8SNA040020
B36232G37		TS1/8SNA045
B36232G18		TS1/8SNA050
B36232G26		TS1/8SNA055
B36232G20		TS1/8SNA060
B36232G31		TS1/8SNA070
B36232G35		TS1/8SNA073
B36232G34		TS1/8SNA076
B36232G27		TS1/8SNA080
B36232G28		TS1/8SNA093
B36232G21		TS1/8SNA114
B36232G32		TS1/8SNA125
B36232G33		TS1/8SNA156
B36232G40		TS1/8SNA201
B28252G08	D1024	TS1/8SNB010
B28252G37		TS1/8SNB012
B28252G39		TS1/8SNB012012012
B28252G04	D1020	TS1/8SNB014
B28252G22		TS1/8SNB015
B28252G07	D1023	TS1/8SNB015015
B28252G40		TS1/8SNB015015015
B28252G11	D1015	TS1/8SNB018018
B28252G16	D1034	TS1/8SNB020
B28252G09	D1025	TS1/8SNB020015
B28252G06	D1022	TS1/8SNB020020
B28252G14	D1032	TS1/8SNB023
B28252G05	D1021	TS1/8SNB023023
B28252G21		TS1/8SNB024
B28252G15	D1033	TS1/8SNB025
B28252G10	D1014	TS1/8SNB025020
B28252G12	D1016	TS1/8SNB025020015
B28252G24		TS1/8SNB025025
B28252G01	D1013	TS1/8SNB028
B28252G17	D1035	TS1/8SNB030
B28252G13	D1031	TS1/8SNB030030

Part Number	OLD Nozzle Code	NEW Nozzle Code
B28252G23		TS1/8SNB032
B28252G03	D1019	TS1/8SNB033
B28252G19	D1069	TS1/8SNB035035
B28252G36		TS1/8SNB036
B28252G02	D1018	TS1/8SNB040
B28252G34		TS1/8SNB040020
B28252G20		TS1/8SNB045
B28252G18	D1036	TS1/8SNB050
B28252G27		TS1/8SNB055
B28252G26		TS1/8SNB060
B28252G28		TS1/8SNB070
B28252G33		TS1/8SNB073
B28252G32		TS1/8SNB076
B28252G38		TS1/8SNB080
B28252G29		TS1/8SNB093
B28252G35		TS1/8SNB114
B28252G30		TS1/8SNB125
B28252G31		TS1/8SNB156
B28252G25		TS1/8SNB201
A31532G23		TS2BDNA023
A31532G25		TS2BDNA025
A31532G28		TS2BDNA028
A31532G30		TS2BDNA030
A31532G33		TS2BDNA033
A31532G35		TS2BDNA035
A31532G37		TS2BDNA037
A31532G40		TS2BDNA040
A31532G42		TS2BDNA042
A31532G45		TS2BDNA045
A31532G50		TS2BDNA050
A31532G55		TS2BDNA055
A31532G60		TS2BDNA060
A31532G70		TS2BDNA070
A31532G80		TS2BDNA080
A30329G32		TS2BRNA005
A30064G09	D1111	TS2BRNA005005
A30064G20		TS2BRNA006006
A30329G50		TS2BRNA007
A30064G21		TS2BRNA007007
A30329G38		TS2BRNA008

Part Number	OLD Nozzle Code	NEW Nozzle Code
A30064G01		TS2BRNA008008
A30329G31		TS2BRNA010
A30064G10	D1112	TS2BRNA010010
A30329G49		TS2BRNA011
A30329G44		TS2BRNA012
A30064G02	D1104	TS2BRNA012012
A30064G18		TS2BRNA014014
A30329G43		TS2BRNA015
A30064G11	D1113	TS2BRNA015015
A30329G45		TS2BRNA016
A30064G03	D1105	TS2BRNA016016
A30329G33		TS2BRNA018
A30064G12	D1114	TS2BRNA018018
A30329G42		TS2BRNA020
A30064G04	D1106	TS2BRNA020020
A30329G46		TS2BRNA024
A30064G05	D1107	TS2BRNA024024
A30329G40		TS2BRNA025
A30064G08	D1110	TS2BRNA025025
A30329G35		TS2BRNA028
A30064G06	D1108	TS2BRNA028028
A30329G41		TS2BRNA030
A30064G13	D1115	TS2BRNA030030
A30329G47		TS2BRNA032
A30064G07	D1109	TS2BRNA032032
A30329G37		TS2BRNA033
A30064G14	D1116	TS2BRNA033033
A30329G39		TS2BRNA035
A30064G15	D1117	TS2BRNA035035
A30329G34		TS2BRNA040
A30064G16	D1118	TS2BRNA040040
A30329G48		TS2BRNA048
A30064G19		TS2BRNA050050
A30329G36		TS2BRNA055
A30064G17	D1119	TS2BRNA055055
B39511G08		TS2BSNB010
B39511G35		TS2BSNB012
B39511G38		TS2BSNB012012012
B39511G04		TS2BSNB014
B39511G22		TS2BSNB015

Parts Cross Reference

B39511G07 - B28253G75

Part Number	OLD Nozzle Code	NEW Nozzle Code
B39511G07		TS2BSNB015015
B39511G39		TS2BSNB015015015
B39511G12		TS2BSNB015020025
B39511G11		TS2BSNB018018
B39511G16		TS2BSNB020
B39511G09		TS2BSNB020015
B39511G06		TS2BSNB020020
B39511G14		TS2BSNB023
B39511G05		TS2BSNB023023
B39511G21		TS2BSNB024
B39511G15		TS2BSNB025
B39511G10		TS2BSNB025020
B39511G37		TS2BSNB025025
B39511G01		TS2BSNB028
B39511G17		TS2BSNB030
B39511G13		TS2BSNB030030
B39511G23		TS2BSNB032
B39511G03		TS2BSNB033
B39511G19		TS2BSNB035035
B39511G34		TS2BSNB036
B39511G02		TS2BSNB040
B39511G31		TS2BSNB040020
B39511G20		TS2BSNB045
B39511G18		TS2BSNB050
B39511G24		TS2BSNB055
B39511G33		TS2BSNB060
B39511G25		TS2BSNB070
B39511G30		TS2BSNB073
B39511G29		TS2BSNB076
B39511G36		TS2BSNB080
B39511G26		TS2BSNB093
B39511G32		TS2BSNB114
B39511G27		TS2BSNB125
B39511G28		TS2BSNB156
B39511G40		TS2BSNB201
B36467G023CF		TS3/8DFA023
B36467G025CF		TS3/8DFA025
B36467G028CF		TS3/8DFA028
B36467G030CF		TS3/8DFA030
B36467G033CF		TS3/8DFA033

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36467G035CF		TS3/8DFA035
B36467G037CF		TS3/8DFA037
B36467G040CF		TS3/8DFA040
B36467G042CF		TS3/8DFA042
B36467G045CF		TS3/8DFA045
B36467G050CF		TS3/8DFA050
B36467G055CF		TS3/8DFA055
B36467G060CF		TS3/8DFA060
B36467G070CF		TS3/8DFA070
B36467G080CF		TS3/8DFA080
B28251G3		TS3/8DFB023
B28251G7		TS3/8DFB025
B28251G1		TS3/8DFB028
B28251G8		TS3/8DFB030
B28251G4		TS3/8DFB033
B28251G9		TS3/8DFB035
B28251G10		TS3/8DFB037
B28251G2		TS3/8DFB040
B28251G11		TS3/8DFB042
B28251G12		TS3/8DFB045
B28251G13		TS3/8DFB050
B28251G5		TS3/8DFB055
B28251G14		TS3/8DFB060
B28251G15		TS3/8DFB070
B28251G16		TS3/8DFB080
B36467G005SF		TS3/8PFA005
B36467G007SF		TS3/8PFA007
B36467G008SF		TS3/8PFA008
B36467G010SF		TS3/8PFA010
B36467G011SF		TS3/8PFA011
B36467G012SF		TS3/8PFA012
B36467G015SF		TS3/8PFA015
B36467G016SF		TS3/8PFA016
B36467G018SF		TS3/8PFA018
B36467G020SF		TS3/8PFA020
B36467G024SF		TS3/8PFA024
B36467G025SF		TS3/8PFA025
B36467G028SF		TS3/8PFA028
B36467G030SF		TS3/8PFA030
B36467G032SF		TS3/8PFA032

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36467G033SF		TS3/8PFA033
B36467G035SF		TS3/8PFA035
B36467G040SF		TS3/8PFA040
B36467G048SF		TS3/8PFA048
B36467G055SF		TS3/8PFA055
B28251G70		TS3/8PFB005
B28251G88		TS3/8PFB007
B28251G76		TS3/8PFB008
B28251G6		TS3/8PFB010
B28251G87		TS3/8PFB011
B28251G82		TS3/8PFB012
B28251G81		TS3/8PFB015
B28251G83		TS3/8PFB016
B28251G71		TS3/8PFB018
B28251G80		TS3/8PFB020
B28251G84		TS3/8PFB024
B28251G78		TS3/8PFB025
B28251G73		TS3/8PFB028
B28251G79		TS3/8PFB030
B28251G85		TS3/8PFB032
B28251G75		TS3/8PFB033
B28251G77		TS3/8PFB035
B28251G72		TS3/8PFB040
B28251G86		TS3/8PFB048
B28251G74		TS3/8PFB055
B28253G70		TS3/8PNB005
B28253G88		TS3/8PNB007
B28253G76		TS3/8PNB008
B28253G87		TS3/8PNB011
B28253G82		TS3/8PNB012
B28253G81		TS3/8PNB015
B28253G83		TS3/8PNB016
B28253G71		TS3/8PNB018
B28253G80		TS3/8PNB020
B28253G84		TS3/8PNB024
B28253G78		TS3/8PNB025
B28253G73		TS3/8PNB028
B28253G79		TS3/8PNB030
B28253G85		TS3/8PNB032
B28253G75		TS3/8PNB033

Parts Cross Reference

B28253G77 - B36233G15

Part Number	OLD Nozzle Code	NEW Nozzle Code
B28253G77		TS3/8PNB035
B28253G72		TS3/8PNB040
B28253G86		TS3/8PNB048
B28253G74		TS3/8PNB055
B36467G005RF		TS3/8RFA005
B36518G32		TS3/8RFA005
B37262G09	D1144	TS3/8RFA005005
B37262G20		TS3/8RFA006006
B36467G007RF		TS3/8RFA007
B36518G50		TS3/8RFA007
B37262G21		TS3/8RFA007007
B36467G008RF		TS3/8RFA008
B36518G38		TS3/8RFA008
B37262G01	D1137	TS3/8RFA008008
B36467G010RF		TS3/8RFA010
B36518G31		TS3/8RFA010
B37262G10	D1145	TS3/8RFA010010
B36467G011RF		TS3/8RFA011
B36518G49		TS3/8RFA011
B36467G012RF		TS3/8RFA012
B36518G44		TS3/8RFA012
B37262G02	D1138	TS3/8RFA012012
B37262G18		TS3/8RFA014014
B36467G015RF	D1063	TS3/8RFA015
B36518G43		TS3/8RFA015
B37262G11	D1146	TS3/8RFA015015
B36467G016RF		TS3/8RFA016
B36518G45		TS3/8RFA016
B37262G03	D1139	TS3/8RFA016016
B36467G018RF		TS3/8RFA018
B36518G33		TS3/8RFA018
B37262G12	D1147	TS3/8RFA018018
B36467G020RF	D1065	TS3/8RFA020
B36518G42		TS3/8RFA020
B37262G04	D1140	TS3/8RFA020020
B36467G024RF		TS3/8RFA024
B36518G46		TS3/8RFA024
B37262G05	D1141	TS3/8RFA024024
B36467G025RF		TS3/8RFA025
B36518G40		TS3/8RFA025

Part Number	OLD Nozzle Code	NEW Nozzle Code
B37262G08	D1078	TS3/8RFA025025
B36467G028RF	D1066	TS3/8RFA028
B36518G35		TS3/8RFA028
B37262G06	D1142	TS3/8RFA028028
B36467G030RF	D1067	TS3/8RFA030
B36518G41		TS3/8RFA030
B37262G13	D1148	TS3/8RFA030030
B36467G032RF		TS3/8RFA032
B36518G47		TS3/8RFA032
B37262G07	D1143	TS3/8RFA032032
B36467G033RF		TS3/8RFA033
B36518G37		TS3/8RFA033
B37262G14	D1149	TS3/8RFA033033
B36467G035RF		TS3/8RFA035
B36518G39		TS3/8RFA035
B37262G15	D1150	TS3/8RFA035035
B36467G040RF		TS3/8RFA040
B36518G34		TS3/8RFA040
B37262G16	D1151	TS3/8RFA040040
B36467G048RF		TS3/8RFA048
B36518G48		TS3/8RFA048
B37262G19		TS3/8RFA050050
B36467G055RF		TS3/8RFA055
B36518G36		TS3/8RFA055
B37262G17	D1152	TS3/8RFA055055
B28251G31		TS3/8RFB005
B28251G49		TS3/8RFB007
B28251G37		TS3/8RFB008
B28251G30		TS3/8RFB010
B28251G48		TS3/8RFB011
B28251G43		TS3/8RFB012
B28251G42		TS3/8RFB015
B28251G44		TS3/8RFB016
B28251G32		TS3/8RFB018
B28251G41		TS3/8RFB020
B28251G45		TS3/8RFB024
B28253G39		TS3/8RNB025
B28253G44		TS3/8RNB016
B28253G32		TS3/8RNB018
B28253G41		TS3/8RNB020
B28253G45		TS3/8RNB024
B28253G39		TS3/8RNB025
B28253G40		TS3/8RNB030
B28253G46		TS3/8RNB032
B28253G36		TS3/8RNB033
B28253G38		TS3/8RNB035
B28253G47		TS3/8RNB048
B28253G35		TS3/8RNB055
B36233G08		TS3/8SFA010
B36233G24		TS3/8SFA012
B36233G29		TS3/8SFA012012012
B36233G04		TS3/8SFA014
B36233G25		TS3/8SFA015
B36233G07		TS3/8SFA015015
B36233G30		TS3/8SFA015015015
B36233G12		TS3/8SFA015020025
B36233G11		TS3/8SFA018018
B36233G16		TS3/8SFA020
B36233G09		TS3/8SFA020015
B36233G06		TS3/8SFA020020
B36233G14		TS3/8SFA023
B36233G05		TS3/8SFA023023
B36233G38		TS3/8SFA024
B36233G15		TS3/8SFA025

Parts Cross Reference

B36233G10 - B39512G17

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36233G10		TS3/8SFA025020
B36233G39		TS3/8SFA025025
B36233G01		TS3/8SFA028
B36233G17		TS3/8SFA030
B36233G13		TS3/8SFA030030
B36233G22		TS3/8SFA032
B36233G03		TS3/8SFA033
B36233G36		TS3/8SFA035035
B36233G23		TS3/8SFA036
B36233G02		TS3/8SFA040
B36233G19		TS3/8SFA040020
B36233G37		TS3/8SFA045
B36233G18		TS3/8SFA050
B36233G26		TS3/8SFA055
B36233G20		TS3/8SFA060
B36233G31		TS3/8SFA070
B36233G35		TS3/8SFA073
B36233G34		TS3/8SFA076
B36233G27		TS3/8SFA080
B36233G28		TS3/8SFA093
B36233G21		TS3/8SFA114
B36233G32		TS3/8SFA125
B36233G33		TS3/8SFA156
B36233G40		TS3/8SFA201
B28250G8		TS3/8SFB010
B28250G37		TS3/8SFB012
B28250G39		TS3/8SFB012012012
B28250G4		TS3/8SFB014
B28250G22		TS3/8SFB015
B28250G40		TS3/8SFB015015015
B28250G12		TS3/8SFB015020025
B28250G11		TS3/8SFB018018
B28250G16		TS3/8SFB020
B28250G9		TS3/8SFB020015
B28250G14		TS3/8SFB023
B28250G5		TS3/8SFB023023
B28250G21		TS3/8SFB024
B28250G15		TS3/8SFB025
B28250G24		TS3/8SFB025025
B28250G17		TS3/8SFB030

Part Number	OLD Nozzle Code	NEW Nozzle Code
B28250G13		TS3/8SFB030030
B28250G23		TS3/8SFB032
B28250G3		TS3/8SFB033
B28250G19		TS3/8SFB035035
B28250G36		TS3/8SFB036
B28250G34		TS3/8SFB040020
B28250G20		TS3/8SFB045
B28250G18		TS3/8SFB050
B28250G27		TS3/8SFB055
B28250G26		TS3/8SFB060
B28250G28		TS3/8SFB070
B28250G33		TS3/8SFB073
B28250G32		TS3/8SFB076
B28250G38		TS3/8SFB080
B28250G29		TS3/8SFB093
B28250G35		TS3/8SFB114
B28250G30		TS3/8SFB125
B28250G31		TS3/8SFB156
B28250G25		TS3/8SFB201
KSD004890G32		TS6BRFA005
B37101G09	D1128	TS6BRFA005005
B37101G20		TS6BRFA006006
KSD004890G50		TS6BRFA007
B37101G21		TS6BRFA007007
KSD004890G38		TS6BRFA008
B37101G01	D1120	TS6BRFA008008
KSD004890G31		TS6BRFA010
B37101G10	D1129	TS6BRFA010010
KSD004890G49		TS6BRFA011
KSD004890G44		TS6BRFA012
B37101G02	D1121	TS6BRFA012012
B37101G13	D1132	TS6BRFA013013
B37101G18		TS6BRFA014014
KSD004890G43		TS6BRFA015
B37101G11	D1130	TS6BRFA015015
KSD004890G45		TS6BRFA016
B37101G03	D1122	TS6BRFA016016
KSD004890G33		TS6BRFA018
B37101G12	D1131	TS6BRFA018018
KSD004890G42		TS6BRFA020

Part Number	OLD Nozzle Code	NEW Nozzle Code
B37101G04	D1123	TS6BRFA020020
KSD004890G46		TS6BRFA024
B37101G05	D1124	TS6BRFA024024
KSD004890G40		TS6BRFA025
B37101G08	D1127	TS6BRFA025025
KSD004890G35		TS6BRFA028
B37101G06	D1125	TS6BRFA028028
KSD004890G41		TS6BRFA030
KSD004890G47		TS6BRFA032
B37101G07	D1126	TS6BRFA032032
KSD004890G37		TS6BRFA033
B37101G14	D1133	TS6BRFA033033
KSD004890G39		TS6BRFA035
B37101G15	D1134	TS6BRFA035035
KSD004890G34		TS6BRFA040
B37101G16	D1135	TS6BRFA040040
KSD004890G48		TS6BRFA048
B37101G17	D1136	TS6BRFA050050
B37101G19		TS6BRFA050050
KSD004890G36		TS6BRFA055
B39512G08		TS6BSFB010
B39512G35		TS6BSFB012
B39512G38		TS6BSFB012012012
B39512G04		TS6BSFB014
B39512G22		TS6BSFB015
B39512G07		TS6BSFB015015
B39512G39		TS6BSFB015015015
B39512G12		TS6BSFB015020025
B39512G11		TS6BSFB018018
B39512G16		TS6BSFB020
B39512G09		TS6BSFB020015
B39512G06		TS6BSFB020020
B39512G14		TS6BSFB023
B39512G05		TS6BSFB023023
B39512G21		TS6BSFB024
B39512G15		TS6BSFB025
B39512G10		TS6BSFB025020
B39512G37		TS6BSFB025025
B39512G01		TS6BSFB028
B39512G17		TS6BSFB030

Parts Cross Reference

B39512G13 - C30132G17

Part Number	OLD Nozzle Code	NEW Nozzle Code
B39512G13		TS6BSFB030030
B39512G23		TS6BSFB032
B39512G03		TS6BSFB033
B39512G19		TS6BSFB035035
B39512G34		TS6BSFB036
B39512G02		TS6BSFB040
B39512G31		TS6BSFB040020
B39512G20		TS6BSFB045
B39512G18		TS6BSFB050
B39512G24		TS6BSFB055
B39512G33		TS6BSFB060
B39512G25		TS6BSFB070
B39512G30		TS6BSFB073
B39512G29		TS6BSFB076
B39512G36		TS6BSFB080
B39512G26		TS6BSFB093
B39512G32		TS6BSFB114
B39512G27		TS6BSFB125
B39512G28		TS6BSFB156
B39512G40		TS6BSFB201
C30132G118	F3030	VF1/2S000297
C30132G119	F3031	VF1/2S000328
C30132G100	F3011	VF1/2S015078
C30132G101	F3012	VF1/2S015093
C30132G102	F3013	VF1/2S015109
C30132G103	F3014	VF1/2S015125
C30132G104	F3015	VF1/2S015141
C30132G105	F3016	VF1/2S015156
C30132G106	F3017	VF1/2S015172
C30132G107	F3018	VF1/2S015188
C30132G108	F3019	VF1/2S015203
C30132G109	F3020	VF1/2S015219
C30132G110	F3022	VF1/2S015234
C30132G111	F3023	VF1/2S015250
C30132G112	F3024	VF1/2S015266
C30132G113	F3025	VF1/2S015281
C30132G114	F3026	VF1/2S015297
C30132G115	F3027	VF1/2S015313
C30132G116	F3028	VF1/2S015328
C30132G117	F3029	VF1/2S015344

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30132G82	F3102	VF1/2S025078
C30132G83	F3103	VF1/2S025093
C30132G84	F3104	VF1/2S025109
C30132G85	F3105	VF1/2S025125
C30132G86	F3106	VF1/2S025141
C30132G87	F3107	VF1/2S025156
C30132G88	F3108	VF1/2S025172
C30132G89	F3109	VF1/2S025188
C30132G90	F3110	VF1/2S025203
C30132G91	F3111	VF1/2S025219
C30132G92	F3112	VF1/2S025234
C30132G93	F3113	VF1/2S025250
C30132G94	F3114	VF1/2S025266
C30132G95	F3115	VF1/2S025281
C30132G96	F3116	VF1/2S025297
C30132G97	F3117	VF1/2S025313
C30132G98	F3118	VF1/2S025328
C30132G99	F3119	VF1/2S025344
C30132G64	F3084	VF1/2S040078
C30132G65	F3085	VF1/2S040093
C30132G66	F3086	VF1/2S040109
C30132G67	F3087	VF1/2S040125
C30132G68	F3088	VF1/2S040141
C30132G69	F3089	VF1/2S040156
C30132G70	F3090	VF1/2S040172
C30132G71	F3091	VF1/2S040188
C30132G72	F3092	VF1/2S040203
C30132G73	F3093	VF1/2S040219
C30132G74	F3094	VF1/2S040234
C30132G75	F3095	VF1/2S040250
C30132G76	F3096	VF1/2S040266
C30132G77	F3097	VF1/2S040281
C30132G78	F3098	VF1/2S040297
C30132G79	F3099	VF1/2S040313
C30132G80	F3100	VF1/2S040328
C30132G81	F3101	VF1/2S040344
C30132G46	F3066	VF1/2S050078
C30132G47	F3067	VF1/2S050093
C30132G48	F3068	VF1/2S050109
C30132G49	F3069	VF1/2S050125

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30132G50	F3070	VF1/2S050141
C30132G51	F3071	VF1/2S050156
C30132G52	F3072	VF1/2S050172
C30132G53	F3073	VF1/2S050188
C30132G54	F3074	VF1/2S050203
C30132G55	F3075	VF1/2S050219
C30132G56	F3076	VF1/2S050234
C30132G57	F3077	VF1/2S050250
C30132G58	F3078	VF1/2S050266
C30132G59	F3079	VF1/2S050281
C30132G60	F3080	VF1/2S050297
C30132G61	F3081	VF1/2S050313
C30132G62	F3082	VF1/2S050328
C30132G63	F3083	VF1/2S050344
C30132G28	F3048	VF1/2S065078
C30132G29	F3049	VF1/2S065093
C30132G30	F3050	VF1/2S065109
C30132G31	F3051	VF1/2S065125
C30132G32	F3052	VF1/2S065141
C30132G33	F3053	VF1/2S065156
C30132G34	F3054	VF1/2S065172
C30132G35	F3055	VF1/2S065188
C30132G36	F3056	VF1/2S065203
C30132G37	F3057	VF1/2S065219
C30132G38	F3058	VF1/2S065234
C30132G39	F3059	VF1/2S065250
C30132G40	F3060	VF1/2S065266
C30132G41	F3061	VF1/2S065281
C30132G42	F3062	VF1/2S065297
C30132G43	F3063	VF1/2S065313
C30132G44	F3064	VF1/2S065328
C30132G45	F3065	VF1/2S065344
C30132G10	F3010	VF1/2S080078
C30132G11	F3021	VF1/2S080093
C30132G12	F3032	VF1/2S080109
C30132G13	F3033	VF1/2S080125
C30132G14	F3034	VF1/2S080141
C30132G15	F3035	VF1/2S080156
C30132G16	F3036	VF1/2S080172
C30132G17	F3037	VF1/2S080188

Parts Cross Reference

C30132G18 - C35287G11

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30132G18	F3038	VF1/2S080203
C30132G19	F3039	VF1/2S080219
C30132G20	F3040	VF1/2S080234
C30132G21	F3041	VF1/2S080250
C30132G22	F3042	VF1/2S080266
C30132G23	F3043	VF1/2S080281
C30132G24	F3044	VF1/2S080297
C30132G25	F3045	VF1/2S080313
C30132G26	F3046	VF1/2S080328
C30132G27	F3047	VF1/2S080344
C30132G01	F3001	VF1/2S095078
C30132G02	F3002	VF1/2S095093
C30132G03	F3003	VF1/2S095109
C30132G04	F3004	VF1/2S095125
C30132G05	F3005	VF1/2S095141
C30132G06	F3006	VF1/2S095156
C30132G07	F3007	VF1/2S095172
C30132G08	F3008	VF1/2S095188
C30132G09	F3009	VF1/2S095203
C29491G328	F0261	VF1/4S000010
C29491G330	F0264	VF1/4S000018
C29491G332	F0266	VF1/4S000021
C29491G334	F0268	VF1/4S000026
C29491G336	F0270	VF1/4S000031
C29491G338	F0272	VF1/4S000036
C29491G340	F0275	VF1/4S000043
C29491G342	F0277	VF1/4S000052
C29491G344	F0279	VF1/4S000057
C29491G362	F0365	VF1/4S000065
C29491G364	F0379	VF1/4S000065
C29491G346	F0281	VF1/4S000072
C29491G348	F0283	VF1/4S000093
C29491G350	F0286	VF1/4S000109
C29491G352	F0288	VF1/4S000141
C29491G354	F0290	VF1/4S000172
C29491G356	F0292	VF1/4S000187
C29491G358	F0294	VF1/4S000203
C29491G70	F0333	VF1/4S015026
C29491G72	F0335	VF1/4S015036
C29491G02	F0002	VF1/4S015040

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G74	F0337	VF1/4S015043
C29491G76	F0339	VF1/4S015052
C29491G78	F0341	VF1/4S015055
C29491G80	F0343	VF1/4S015062
C29491G82	F0345	VF1/4S015070
C29491G84	F0347	VF1/4S015078
C29491G86	F0349	VF1/4S015093
C29491G88	F0351	VF1/4S015109
C29491G90	F0353	VF1/4S015141
C29491G04	F0004	VF1/4S015156
C29491G92	F0355	VF1/4S015156
C29491G94	F0357	VF1/4S015187
C29491G96	F0359	VF1/4S015203
C29491G527	F0404	VF1/4S020070
C29491G126	F0039	VF1/4S025023
C29491G98	F0361	VF1/4S025026
C29491G100	F0011	VF1/4S025036
C29491G102	F0013	VF1/4S025043
C29491G104	F0015	VF1/4S025052
C29491G106	F0017	VF1/4S025057
C29491G108	F0019	VF1/4S025062
C29491G110	F0022	VF1/4S025072
C29491G112	F0024	VF1/4S025078
C29491G114	F0026	VF1/4S025093
C29491G116	F0028	VF1/4S025109
C29491G118	F0030	VF1/4S025141
C29491G120	F0033	VF1/4S025156
C29491G122	F0035	VF1/4S025172
C29491G124	F0037	VF1/4S025187
C29491G06	F0006	VF1/4S030055
C29491G08	F0008	VF1/4S030070
C29491G10	F0010	VF1/4S030093
C29491G510	F0383	VF1/4S030109
C32910G506	F7025	VF1/4S030125
C29491G12	F0032	VF1/4S030156
C29491G500	F0372	VF1/4S030172
C29491G14	F0054	VF1/4S030187
C29491G516	F0389	VF1/4S030219
C29491G16	F0076	VF1/4S030250
C29491G128	F0041	VF1/4S040026

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G132	F0046	VF1/4S040036
C29491G134	F0048	VF1/4S040043
C29491G136	F0050	VF1/4S040052
C29491G138	F0052	VF1/4S040057
C29491G140	F0055	VF1/4S040062
C29491G142	F0057	VF1/4S040072
C29491G144	F0059	VF1/4S040078
C29491G146	F0061	VF1/4S040093
C29491G148	F0063	VF1/4S040109
C29491G130	F0044	VF1/4S040131
C29491G150	F0066	VF1/4S040141
C29491G152	F0068	VF1/4S040156
C29491G154	F0070	VF1/4S040172
C29491G156	F0072	VF1/4S040187
C29491G158	F0074	VF1/4S040203
C29491G18	F0098	VF1/4S045040
C29491G20	F0120	VF1/4S045055
C29491G22	F0142	VF1/4S045070
C29491G24	F0164	VF1/4S045093
C29491G512	F0385	VF1/4S045109
C29491G26	F0186	VF1/4S045125
C29491G28	F0208	VF1/4S045156
C29491G30	F0230	VF1/4S045187
C29491G160	F0077	VF1/4S050026
C29491G162	F0079	VF1/4S050036
C29491G164	F0081	VF1/4S050043
C29491G166	F0083	VF1/4S050052
C29491G168	F0085	VF1/4S050057
C29491G170	F0088	VF1/4S050062
C29491G172	F0090	VF1/4S050072
C29491G174	F0092	VF1/4S050078
C29491G176	F0094	VF1/4S050093
C29491G178	F0096	VF1/4S050109
C29491G180	F0099	VF1/4S050141
C29491G182	F0101	VF1/4S050156
C29491G184	F0103	VF1/4S050172
C29491G186	F0105	VF1/4S050187
C29491G188	F0107	VF1/4S050203
C29491G405	F0367	VF1/4S060026
C29491G128	F7028	VF1/4S060026
C35287G11		

Parts Cross Reference

C29491G32 - C29491G351

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G32	F0252	VF1/4S060033
C29491G34	F0274	VF1/4S060040
C29491G36	F0295	VF1/4S060055
C29491G504	F0375	VF1/4S060057
C29491G38	F0297	VF1/4S060070
C29491G502	F0373	VF1/4S060078
C29491G40	F0299	VF1/4S060093
C29491G508	F0381	VF1/4S060109
C29491G42	F0305	VF1/4S060125
C29491G44	F0307	VF1/4S060156
C29491G190	F0110	VF1/4S065011
C29491G192	F0112	VF1/4S065013
C29491G194	F0114	VF1/4S065015
C29491G196	F0116	VF1/4S065021
C29491G198	F0118	VF1/4S065026
C29491G326	F0259	VF1/4S065028
C29491G200	F0121	VF1/4S065031
C29491G202	F0123	VF1/4S065036
C29491G204	F0125	VF1/4S065040
C29491G206	F0127	VF1/4S065043
C29491G208	F0129	VF1/4S065052
C29491G210	F0132	VF1/4S065057
C29491G212	F0134	VF1/4S065062
C29491G214	F0136	VF1/4S065072
C29491G216	F0138	VF1/4S065078
C29491G218	F0140	VF1/4S065093
C29491G220	F0143	VF1/4S065109
C29491G222	F0145	VF1/4S065141
C29491G224	F0147	VF1/4S065156
C29491G226	F0149	VF1/4S065172
C29491G228	F0151	VF1/4S065187
C29491G230	F0154	VF1/4S065203
C29491G232	F0156	VF1/4S073022
C29491G234	F0158	VF1/4S073032
C29491G236	F0160	VF1/4S073040
C29491G238	F0162	VF1/4S073045
C35287G09	F7018	VF1/4S073045
C29491G240	F0165	VF1/4S073056
C29491G242	F0167	VF1/4S073072
C29491G522	F0396	VF1/4S073141

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G244	F0169	VF1/4S080018
C29491G246	F0171	VF1/4S080021
C29491G248	F0173	VF1/4S080026
C29491G250	F0176	VF1/4S080031
C29491G252	F0178	VF1/4S080036
C29491G254	F0180	VF1/4S080043
C29491G256	F0182	VF1/4S080052
C29491G258	F0184	VF1/4S080057
C29491G60	F0323	VF1/4S080062
C29491G260	F0187	VF1/4S080072
C29491G62	F0325	VF1/4S080078
C29491G262	F0189	VF1/4S080093
C29491G264	F0191	VF1/4S080109
C29491G266	F0193	VF1/4S080141
C29491G68	F0331	VF1/4S080156
C29491G268	F0195	VF1/4S080172
C29491G270	F0198	VF1/4S080187
C29491G272	F0200	VF1/4S080203
C29491G524	F0399	VF1/4S090026
C29491G46	F0309	VF1/4S090028
C29491G48	F0311	VF1/4S090033
C29491G50	F0313	VF1/4S090040
C29491G403	F0303	VF1/4S090043
C29491G52	F0315	VF1/4S090055
C29491G520	F0394	VF1/4S090057
C29491G54	F0317	VF1/4S090070
C29491G530	F0409	VF1/4S090078
C29491G56	F0319	VF1/4S090093
C29491G514	F0387	VF1/4S090109
C29491G58	F0321	VF1/4S090125
C29491G409	F0371	VF1/4S090156
C29491G274	F0202	VF1/4S095018
C29491G276	F0204	VF1/4S095026
C29491G278	F0206	VF1/4S095031
C29491G280	F0209	VF1/4S095036
C29491G282	F0211	VF1/4S095043
C35287G10	F7021	VF1/4S095043
C29491G284	F0213	VF1/4S095052
C29491G286	F0215	VF1/4S095057
C29491G288	F0217	VF1/4S095062

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G526	F0401	VF1/4S095070
C29491G290	F0220	VF1/4S095072
C29491G292	F0222	VF1/4S095078
C29491G294	F0224	VF1/4S095093
C29491G296	F0226	VF1/4S095109
C29491G298	F0228	VF1/4S095141
C29491G300	F0231	VF1/4S095156
C29491G302	F0233	VF1/4S095172
C29491G304	F0235	VF1/4S095187
C29491G306	F0237	VF1/4S095203
C29491G401	F0301	VF1/4S110022
C29491G308	F0239	VF1/4S110026
C29491G310	F0242	VF1/4S110031
C29491G312	F0244	VF1/4S110036
C29491G518	F0392	VF1/4S110040
C29491G314	F0246	VF1/4S110043
C29491G316	F0248	VF1/4S110052
C29491G64	F0327	VF1/4S110055
C29491G318	F0250	VF1/4S110062
C29491G66	F0329	VF1/4S110070
C29491G320	F0253	VF1/4S110078
C29491G322	F0255	VF1/4S110093
C29491G324	F0257	VF1/4S110109
C29491G506	F0377	VF1/4S110141
C29491G407	F0369	VF1/4S120057
C29491G327	F0260	VF1/8S000010
C29491G329	F0262	VF1/8S000018
C29491G331	F0265	VF1/8S000021
C29491G333	F0267	VF1/8S000026
C29491G335	F0269	VF1/8S000031
C29491G337	F0271	VF1/8S000036
C29491G339	F0273	VF1/8S000043
C29491G341	F0276	VF1/8S000052
C29491G343	F0278	VF1/8S000057
C29491G361	F0364	VF1/8S000065
C29491G363	F0378	VF1/8S000065
C29491G345	F0280	VF1/8S000072
C29491G347	F0282	VF1/8S000093
C29491G349	F0284	VF1/8S000109
C29491G351	F0287	VF1/8S000141

Parts Cross Reference

C29491G353 - C29491G239

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G353	F0289	VF1/8S000172
C29491G355	F0291	VF1/8S000187
C29491G357	F0293	VF1/8S000203
C29491G69	F0332	VF1/8S015026
C29491G71	F0334	VF1/8S015036
C29491G01	F0001	VF1/8S015040
C29491G73	F0336	VF1/8S015043
C29491G75	F0338	VF1/8S015052
C29491G77	F0340	VF1/8S015055
C29491G79	F0342	VF1/8S015062
C29491G81	F0344	VF1/8S015070
C29491G83	F0346	VF1/8S015078
C29491G85	F0348	VF1/8S015093
C29491G87	F0350	VF1/8S015109
C29491G89	F0352	VF1/8S015141
C29491G03	F0003	VF1/8S015156
C29491G91	F0354	VF1/8S015156
C29491G93	F0356	VF1/8S015187
C29491G95	F0358	VF1/8S015203
C29491G97	F0360	VF1/8S025026
C29491G99	F0362	VF1/8S025036
C29491G101	F0012	VF1/8S025043
C29491G103	F0014	VF1/8S025052
C29491G105	F0016	VF1/8S025057
C29491G107	F0018	VF1/8S025062
C29491G109	F0020	VF1/8S025072
C29491G111	F0023	VF1/8S025078
C29491G113	F0025	VF1/8S025093
C29491G115	F0027	VF1/8S025109
C29491G117	F0029	VF1/8S025141
C29491G119	F0031	VF1/8S025156
C29491G121	F0034	VF1/8S025172
C29491G123	F0036	VF1/8S025187
C29491G125	F0038	VF1/8S025203
C29491G05	F0005	VF1/8S030055
C29491G07	F0007	VF1/8S030070
C29491G09	F0009	VF1/8S030093
C29491G509	F0382	VF1/8S030109
C29491G11	F0021	VF1/8S030156
C29491G13	F0043	VF1/8S030187

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G515	F0388	VF1/8S030219
C29491G15	F0065	VF1/8S030250
C29491G127	F0040	VF1/8S040026
C29491G129	F0042	VF1/8S040031
C29491G131	F0045	VF1/8S040036
C29491G133	F0047	VF1/8S040043
C29491G135	F0049	VF1/8S040052
C29491G137	F0051	VF1/8S040057
C29491G139	F0053	VF1/8S040062
C29491G141	F0056	VF1/8S040072
C29491G143	F0058	VF1/8S040078
C29491G145	F0060	VF1/8S040093
C29491G147	F0062	VF1/8S040109
C29491G149	F0064	VF1/8S040141
C29491G151	F0067	VF1/8S040156
C29491G153	F0069	VF1/8S040172
C29491G155	F0071	VF1/8S040187
C29491G157	F0073	VF1/8S040203
C29491G17	F0087	VF1/8S045040
C29491G19	F0109	VF1/8S045055
C29491G21	F0131	VF1/8S045070
C29491G23	F0153	VF1/8S045093
C29491G511	F0384	VF1/8S045109
C29491G25	F0175	VF1/8S045125
C29491G27	F0197	VF1/8S045156
C29491G29	F0219	VF1/8S045187
C29491G159	F0075	VF1/8S050026
C29491G161	F0078	VF1/8S050036
C29491G163	F0080	VF1/8S050043
C29491G165	F0082	VF1/8S050052
C29491G167	F0084	VF1/8S050057
C29491G169	F0086	VF1/8S050062
C29491G171	F0089	VF1/8S050072
C29491G173	F0091	VF1/8S050078
C29491G175	F0093	VF1/8S050093
C29491G177	F0095	VF1/8S050109
C29491G179	F0097	VF1/8S050141
C29491G181	F0100	VF1/8S050156
C29491G183	F0102	VF1/8S050172
C29491G185	F0104	VF1/8S050187

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G187	F0106	VF1/8S050203
C29491G404	F0366	VF1/8S060026
C29491G31	F0241	VF1/8S060033
C29491G33	F0263	VF1/8S060040
C29491G35	F0285	VF1/8S060055
C29491G503	F0374	VF1/8S060057
C29491G37	F0296	VF1/8S060070
C29491G501	F0363	VF1/8S060078
C29491G39	F0298	VF1/8S060093
C29491G507	F0380	VF1/8S060109
C29491G41	F0304	VF1/8S060125
C29491G43	F0306	VF1/8S060156
C29491G189	F0108	VF1/8S065011
C29491G191	F0111	VF1/8S065013
C29491G193	F0113	VF1/8S065015
C32910G509	F7038	VF1/8S065018
C29491G195	F0115	VF1/8S065021
C29491G197	F0117	VF1/8S065026
C29491G325	F0258	VF1/8S065028
C29491G199	F0119	VF1/8S065031
C29491G201	F0122	VF1/8S065036
C29491G203	F0124	VF1/8S065040
C29491G205	F0126	VF1/8S065043
C29491G207	F0128	VF1/8S065052
C29491G209	F0130	VF1/8S065057
C29491G211	F0133	VF1/8S065062
C29491G213	F0135	VF1/8S065072
C29491G215	F0137	VF1/8S065078
C29491G217	F0139	VF1/8S065093
C29491G219	F0141	VF1/8S065109
C29491G221	F0144	VF1/8S065141
C29491G223	F0146	VF1/8S065156
C29491G225	F0148	VF1/8S065172
C29491G227	F0150	VF1/8S065187
C29491G229	F0152	VF1/8S065203
C29491G231	F0155	VF1/8S073022
C29491G233	F0157	VF1/8S073032
C29491G235	F0159	VF1/8S073040
C29491G237	F0161	VF1/8S073045
C29491G239	F0163	VF1/8S073056

Parts Cross Reference

C29491G241 - C30021G19

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G241	F0166	VF1/8S073072
C29491G521	F0395	VF1/8S073141
C29491G243	F0168	VF1/8S080018
C29491G245	F0170	VF1/8S080021
C29491G247	F0172	VF1/8S080026
C29491G249	F0174	VF1/8S080031
C29491G251	F0177	VF1/8S080036
C29491G253	F0179	VF1/8S080043
C29491G255	F0181	VF1/8S080052
C29491G257	F0183	VF1/8S080057
C29491G59	F0322	VF1/8S080062
C29491G259	F0185	VF1/8S080072
C29491G61	F0324	VF1/8S080078
C29491G269	F0196	VF1/8S080087
C29491G261	F0188	VF1/8S080093
C29491G263	F0190	VF1/8S080109
C29491G265	F0192	VF1/8S080141
C29491G67	F0330	VF1/8S080156
C29491G267	F0194	VF1/8S080172
C29491G271	F0199	VF1/8S080203
C29491G523	F0398	VF1/8S090026
C29491G45	F0308	VF1/8S090028
C29491G47	F0310	VF1/8S090033
C29491G49	F0312	VF1/8S090040
C29491G402	F0302	VF1/8S090043
C29491G51	F0314	VF1/8S090055
C29491G519	F0393	VF1/8S090057
C29491G57	F0320	VF1/8S090057
C29491G53	F0316	VF1/8S090070
C29491G529	F0408	VF1/8S090078
C29491G55	F0318	VF1/8S090093
C29491G513	F0386	VF1/8S090109
C29491G408	F0370	VF1/8S090156
C29491G273	F0201	VF1/8S095018
C29491G275	F0203	VF1/8S095026
C29491G277	F0205	VF1/8S095031
C29491G279	F0207	VF1/8S095036
C29491G281	F0210	VF1/8S095043
C29491G283	F0212	VF1/8S095052
C29491G285	F0214	VF1/8S095057

Part Number	OLD Nozzle Code	NEW Nozzle Code
C29491G287	F0216	VF1/8S095062
C29491G525	F0400	VF1/8S095070
C29491G289	F0218	VF1/8S095072
C29491G291	F0221	VF1/8S095078
C29491G293	F0223	VF1/8S095093
C29491G295	F0225	VF1/8S095109
C29491G297	F0227	VF1/8S095141
C29491G299	F0229	VF1/8S095156
C29491G301	F0232	VF1/8S095172
C29491G303	F0234	VF1/8S095187
C29491G305	F0236	VF1/8S095203
C29491G400	F0300	VF1/8S110022
C29491G307	F0238	VF1/8S110026
C29491G309	F0240	VF1/8S110031
C29491G311	F0243	VF1/8S110036
C29491G517	F0391	VF1/8S110040
C29491G313	F0245	VF1/8S110043
C29491G315	F0247	VF1/8S110052
C29491G63	F0326	VF1/8S110055
C29491G317	F0249	VF1/8S110062
C29491G65	F0328	VF1/8S110070
C29491G319	F0251	VF1/8S110078
C29491G321	F0254	VF1/8S110093
C29491G323	F0256	VF1/8S110109
C29491G505	F0376	VF1/8S110141
C29491G406	F0368	VF1/8S120057
C29491G528	F0407	VF1/8S120070
C32910G503	F7022	VF2BS015125
C32910G507	F7026	VF2BS015172
C32910G505	F7024	VF2BS030125
C32910G25	F7010	VF2BS045125
C32910G33	F7012	VF2BS060040
C32910G501	F7019	VF2BS080156
C30133G06	F3125	VF3/4S015375
C30133G05	F3124	VF3/4S050500
C30133G03	F3122	VF3/4S065344
C30133G04	F3123	VF3/4S065500
C30133G01	F3120	VF3/4S080344
C30133G02	F3121	VF3/4S080500
C30021G62	F1062	VF3/8S000125

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30021G63	F1063	VF3/8S000203
C30021G64	F1064	VF3/8S000219
C30021G65	F1065	VF3/8S000234
C30021G66	F1066	VF3/8S000250
C30021G67	F1067	VF3/8S000375
C30021G51	F1051	VF3/8S015078
C30021G52	F1052	VF3/8S015093
C30021G53	F1053	VF3/8S015109
C30021G54	F1054	VF3/8S015141
C30021G55	F1055	VF3/8S015156
C30021G56	F1056	VF3/8S015172
C30021G57	F1057	VF3/8S015187
C30021G58	F1058	VF3/8S015203
C30021G59	F1059	VF3/8S015250
C30021G60	F1060	VF3/8S015266
C30021G61	F1061	VF3/8S015297
C30021G40	F1040	VF3/8S025078
C30021G41	F1041	VF3/8S025093
C30021G42	F1042	VF3/8S025109
C30021G43	F1043	VF3/8S025141
C30021G44	F1044	VF3/8S025156
C30021G45	F1045	VF3/8S025172
C30021G46	F1046	VF3/8S025187
C30021G47	F1047	VF3/8S025203
C30021G48	F1048	VF3/8S025250
C30021G49	F1049	VF3/8S025266
C30021G50	F1050	VF3/8S025297
C30021G29	F1029	VF3/8S040078
C30021G30	F1030	VF3/8S040093
C30021G31	F1031	VF3/8S040109
C30021G32	F1032	VF3/8S040141
C30021G33	F1033	VF3/8S040156
C30021G34	F1034	VF3/8S040172
C30021G35	F1035	VF3/8S040187
C30021G36	F1036	VF3/8S040203
C30021G37	F1037	VF3/8S040250
C30021G38	F1038	VF3/8S040266
C30021G39	F1039	VF3/8S040297
C30021G18	F1018	VF3/8S050078
C30021G19	F1019	VF3/8S050093

Parts Cross Reference

C30021G20 - C31677G63

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30021G20	F1020	VF3/8S050109
C30021G21	F1021	VF3/8S050141
C30021G22	F1022	VF3/8S050156
C30021G23	F1023	VF3/8S050172
C30021G24	F1024	VF3/8S050187
C30021G25	F1025	VF3/8S050203
C30021G26	F1026	VF3/8S050250
C30021G27	F1027	VF3/8S050266
C30021G28	F1028	VF3/8S050297
C30021G11	F1011	VF3/8S065078
C30021G12	F1012	VF3/8S065093
C30021G13	F1013	VF3/8S065156
C30021G14	F1014	VF3/8S065172
C30021G15	F1015	VF3/8S065187
C30021G16	F1016	VF3/8S065203
C30021G17	F1017	VF3/8S065250
C30021G09	F1009	VF3/8S080025
C30021G02	F1002	VF3/8S080078
C30021G03	F1003	VF3/8S080109
C30021G04	F1004	VF3/8S080141
C30021G05	F1005	VF3/8S080156
C30021G06	F1006	VF3/8S080172
C30021G07	F1007	VF3/8S080187
C30021G08	F1008	VF3/8S080203
C30021G10	F1010	VF3/8S080297
C30021G01	F1001	VF3/8S090203
C32910G504	F7023	VF4BS015125
C32910G90	F7014	VF4BS015141
C32910G508	F7027	VF4BS015172
C32910G606	F7017	VF4BS030055
C32910G148	F7015	VF4BS040109
C32910G22	F7009	VF4BS045070
C32910G26	F7011	VF4BS045125
C32910G34	F7013	VF4BS060040
C32910G510	F7039	VF4BS065018
C32910G196	F7041	VF4BS065021
B36713G021	F7029	VF4BS065021F
B36713G026	F7030	VF4BS065026F
B36713G031	F7031	VF4BS065031F
B36713G036	F7032	VF4BS065036F

Part Number	OLD Nozzle Code	NEW Nozzle Code
B36713G043	F7033	VF4BS065043F
B36713G052	F7034	VF4BS065052F
B36713G057	F7035	VF4BS065057F
B36713G062	F7036	VF4BS065062F
B36713G072	F7037	VF4BS065072F
C32910G256	F7016	VF4BS080052
C32910G502	F7020	VF4BS080156
C31971G01	F7001	VF4BS090010F
C31971G02	F7002	VF4BS090020F
C31971G03	F7003	VF4BS090032F
C31971G04	F7004	VF4BS090040F
C31971G05	F7005	VF4BS090055F
C31971G06	F7006	VF4BS090071F
C31971G07	F7007	VF4BS090087F
C31971G08	F7008	VF4BS090098F
C32910G316	F7040	VF4BS110052
C31677G01	F5001	VF9US015026
C31677G02	F5002	VF9US015036
C31677G03	F5003	VF9US015040
C31677G04	F5004	VF9US015043
C31677G05	F5005	VF9US015052
C31677G06	F5006	VF9US015055
C31677G07	F5007	VF9US015062
C31677G08	F5008	VF9US015070
C31677G09	F5009	VF9US015078
C31677G10	F5010	VF9US015093
C31677G11	F5021	VF9US015109
C31677G12	F5032	VF9US015141
C31677G13	F5043	VF9US015156
C31677G14	F5054	VF9US015172
C31677G15	F5065	VF9US015187
C31677G16	F5076	VF9US015203
C31677G17	F5081	VF9US025026
C31677G18	F5082	VF9US025036
C31677G19	F5083	VF9US025043
C31677G20	F5084	VF9US025052
C31677G21	F5085	VF9US025055
C31677G22	F5086	VF9US025062
C31677G23	F5087	VF9US025070
C31677G24	F5088	VF9US025078

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31677G25	F5089	VF9US025093
C31677G26	F5090	VF9US025109
C31677G27	F5091	VF9US025141
C31677G28	F5092	VF9US025156
C31677G29	F5093	VF9US025172
C31677G30	F5094	VF9US025187
C31677G31	F5095	VF9US025203
C31677G200	F5164	VF9US030040
C31677G32	F5096	VF9US030055
C31677G33	F5097	VF9US030070
C31677G34	F5098	VF9US030093
C31677G35	F5099	VF9US030156
C31677G36	F5100	VF9US030187
C31677G37	F5101	VF9US030219
C31677G38	F5102	VF9US030250
C31677G39	F5103	VF9US040026
C31677G40	F5104	VF9US040031
C31677G41	F5105	VF9US040036
C31677G42	F5106	VF9US040043
C31677G43	F5107	VF9US040052
C31677G44	F5108	VF9US040057
C31677G45	F5109	VF9US040062
C31677G46	F5110	VF9US040072
C31677G47	F5111	VF9US040078
C31677G48	F5112	VF9US040093
C31677G49	F5113	VF9US040109
C31677G50	F5114	VF9US040141
C31677G51	F5115	VF9US040156
C31677G52	F5116	VF9US040172
C31677G53	F5117	VF9US040187
C31677G54	F5118	VF9US040203
C31677G55	F5119	VF9US045040
C31677G56	F5120	VF9US045055
C31677G57	F5121	VF9US045070
C31677G58	F5122	VF9US045093
C31677G59	F5123	VF9US045125
C31677G60	F5124	VF9US045156
C31677G61	F5125	VF9US045187
C31677G62	F5126	VF9US050026
C31677G63	F5127	VF9US050036

Parts Cross Reference

C31677G64 - C30477G03

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31677G64	F5128	VF9US050043
C31677G65	F5129	VF9US050052
C31677G66	F5130	VF9US050057
C31677G67	F5131	VF9US050062
C31677G68	F5132	VF9US050072
C31677G69	F5133	VF9US050078
C31677G70	F5134	VF9US050093
C31677G71	F5135	VF9US050109
C31677G72	F5136	VF9US050141
C31677G73	F5137	VF9US050156
C31677G74	F5138	VF9US050172
C31677G75	F5139	VF9US050187
C31677G76	F5140	VF9US050203
C31677G77	F5141	VF9US060033
C31677G78	F5142	VF9US060040
C31677G79	F5143	VF9US060055
C31677G80	F5144	VF9US060070
C31677G81	F5145	VF9US060093
C31677G82	F5146	VF9US060125
C31677G83	F5147	VF9US060156
C31677G84	F5148	VF9US065011
C31677G85	F5149	VF9US065013
C31677G86	F5150	VF9US065015
C31677G87	F5151	VF9US065021
C31677G88	F5152	VF9US065026
C31677G94	F5158	VF9US065027
C31677G89	F5153	VF9US065031
C31677G90	F5154	VF9US065036
C31677G91	F5155	VF9US065040
C31677G92	F5156	VF9US065043
C31677G93	F5157	VF9US065052
C31677G95	F5159	VF9US065062
C31677G96	F5160	VF9US065072
C31677G97	F5161	VF9US065078
C31677G98	F5162	VF9US065093
C31677G99	F5163	VF9US065109
C31677G100	F5011	VF9US065141
C31677G101	F5012	VF9US065156
C31677G102	F5013	VF9US065172
C31677G103	F5014	VF9US065187

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31677G104	F5015	VF9US065203
C31677G105	F5016	VF9US073022
C31677G106	F5017	VF9US073022
C31677G107	F5018	VF9US073040
C31677G108	F5019	VF9US073045
C31677G109	F5020	VF9US073056
C31677G110	F5022	VF9US073072
C31677G111	F5023	VF9US080018
C31677G112	F5024	VF9US080021
C31677G113	F5025	VF9US080026
C31677G114	F5026	VF9US080031
C31677G115	F5027	VF9US080036
C31677G116	F5028	VF9US080043
C31677G117	F5029	VF9US080052
C31677G118	F5030	VF9US080057
C31677G119	F5031	VF9US080062
C31677G120	F5033	VF9US080072
C31677G121	F5034	VF9US080078
C31677G122	F5035	VF9US080093
C31677G123	F5036	VF9US080109
C31677G124	F5037	VF9US080141
C31677G125	F5038	VF9US080156
C31677G126	F5039	VF9US080172
C31677G127	F5040	VF9US080187
C31677G128	F5041	VF9US080203
C31677G129	F5042	VF9US090028
C31677G130	F5044	VF9US090033
C31677G131	F5045	VF9US090040
C31677G132	F5046	VF9US090055
C31677G133	F5047	VF9US090070
C31677G134	F5048	VF9US090093
C31677G135	F5049	VF9US090125
C31677G136	F5050	VF9US095018
C31677G137	F5051	VF9US095026
C31677G138	F5052	VF9US095031
C31677G139	F5053	VF9US095036
C31677G140	F5055	VF9US095043
C31677G141	F5056	VF9US095052
C31677G142	F5057	VF9US095057
C31677G143	F5058	VF9US095062

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31677G144	F5059	VF9US095072
C31677G145	F5060	VF9US095078
C31677G146	F5061	VF9US095093
C31677G147	F5062	VF9US095109
C31677G148	F5063	VF9US095141
C31677G149	F5064	VF9US095156
C31677G150	F5066	VF9US095172
C31677G151	F5067	VF9US095187
C31677G152	F5068	VF9US095203
C31677G153	F5069	VF9US110026
C31677G154	F5070	VF9US110031
C31677G155	F5071	VF9US110036
C31677G156	F5072	VF9US110043
C31677G157	F5073	VF9US110052
C31677G158	F5074	VF9US110055
C31677G159	F5075	VF9US110062
C31677G160	F5077	VF9US110072
C31677G161	F5078	VF9US110078
C31677G162	F5079	VF9US110093
C31677G163	F5080	VF9US110109
C30477G163	F4080	VHS000010
C30477G164	F4081	VHS000014
C30477G165	F4082	VHS000020
C30477G166	F4083	VHS000028
C30477G167	F4084	VHS000033
C30477G168	F4085	VHS000039
C30477G169	F4086	VHS000040
C30477G170	F4088	VHS000047
C30477G171	F4089	VHS000055
C30477G172	F4090	VHS000063
C30477G173	F4091	VHS000067
C30477G174	F4092	VHS000070
C30477G175	F4093	VHS000078
C30477G176	F4094	VHS000086
C30477G177	F4095	VHS000094
C30477G178	F4096	VHS000107
C30477G179	F4097	VHS000125
C30477G01	F4001	VHS015026
C30477G02	F4002	VHS015036
C30477G03	F4003	VHS015040

Parts Cross Reference

C30477G04 - C30477G120

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30477G04	F4004	VHS015043
C30477G05	F4005	VHS015052
C30477G06	F4006	VHS015055
C30477G07	F4007	VHS015062
C30477G08	F4008	VHS015070
C30477G09	F4009	VHS015078
C30477G10	F4010	VHS015093
C30477G11	F4021	VHS015109
C30477G12	F4032	VHS015141
C30477G13	F4043	VHS015156
C30477G14	F4054	VHS015172
C30477G15	F4065	VHS015187
C30477G16	F4076	VHS015203
C30477G17	F4087	VHS025026
C30477G18	F4098	VHS025036
C30477G19	F4099	VHS025043
C30477G20	F4100	VHS025052
C30477G21	F4111	VHS025057
C30477G22	F4113	VHS025062
C30477G23	F4114	VHS025072
C30477G24	F4115	VHS025078
C30477G25	F4116	VHS025093
C30477G26	F4117	VHS025109
C30477G27	F4118	VHS025141
C30477G28	F4119	VHS025156
C30477G29	F4120	VHS025172
C30477G30	F4121	VHS025187
C30477G31	F4123	VHS025203
C30477G32	F4124	VHS030055
C30477G33	F4125	VHS030070
C30477G34	F4126	VHS030093
C30477G35	F4127	VHS030156
C30477G36	F4128	VHS030187
C30477G301	F4192	VHS030219
C30477G37	F4129	VHS030250
C30477G38	F4130	VHS040026
C30477G39	F4131	VHS040031
C30477G40	F4132	VHS040036
C30477G41	F4133	VHS040043
C30477G42	F4134	VHS040052

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30477G43	F4135	VHS040057
C30477G44	F4136	VHS040062
C30477G45	F4137	VHS040072
C30477G46	F4138	VHS040078
C30477G47	F4139	VHS040093
C30477G48	F4140	VHS040109
C30477G49	F4141	VHS040141
C30477G50	F4142	VHS040156
C30477G51	F4143	VHS040172
C30477G52	F4144	VHS040187
C30477G53	F4145	VHS040203
C30477G300	F4122	VHS040250
C30477G54	F4146	VHS045040
C30477G55	F4147	VHS045055
C30477G56	F4148	VHS045070
C30477G57	F4149	VHS045093
C30477G58	F4150	VHS045125
C30477G59	F4151	VHS045156
C30477G60	F4152	VHS045187
C30477G302	F4194	VHS045219
C30477G61	F4153	VHS050026
C30477G62	F4154	VHS050036
C30477G63	F4155	VHS050043
C30477G64	F4156	VHS050052
C30477G65	F4157	VHS050057
C30477G66	F4158	VHS050062
C30477G67	F4159	VHS050072
C30477G68	F4160	VHS050078
C30477G69	F4161	VHS050093
C30477G70	F4162	VHS050109
C30477G71	F4163	VHS050141
C30477G72	F4164	VHS050156
C30477G73	F4165	VHS050172
C30477G74	F4166	VHS050187
C30477G75	F4167	VHS050203
C30477G76	F4168	VHS060033
C30477G77	F4169	VHS060040
C30477G78	F4170	VHS060055
C30477G79	F4171	VHS060070
C30477G80	F4172	VHS060093

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30477G81	F4173	VHS060125
C30477G82	F4174	VHS060156
C30477G83	F4175	VHS065011
C30477G84	F4176	VHS065013
C30477G85	F4177	VHS065015
C30477G86	F4178	VHS065021
C30477G87	F4179	VHS065026
C30477G88	F4180	VHS065031
C30477G89	F4181	VHS065036
C30477G90	F4182	VHS065040
C30477G91	F4183	VHS065043
C30477G92	F4184	VHS065052
C30477G93	F4185	VHS065057
C30477G94	F4186	VHS065062
C30477G95	F4187	VHS065072
C30477G96	F4188	VHS065078
C30477G97	F4189	VHS065093
C30477G98	F4190	VHS065109
C30477G99	F4191	VHS065141
C30477G100	F4011	VHS065156
C30477G101	F4012	VHS065172
C30477G102	F4013	VHS065187
C30477G103	F4014	VHS065203
C30477G104	F4015	VHS073022
C30477G105	F4016	VHS073032
C30477G106	F4017	VHS073040
C30477G107	F4018	VHS073045
C30477G108	F4019	VHS073056
C30477G109	F4020	VHS073072
C30477G110	F4022	VHS080018
C30477G111	F4023	VHS080021
C30477G112	F4024	VHS080026
C30477G113	F4025	VHS080031
C30477G114	F4026	VHS080036
C30477G115	F4027	VHS080043
C30477G116	F4028	VHS080052
C30477G117	F4029	VHS080057
C30477G118	F4030	VHS080062
C30477G119	F4031	VHS080072
C30477G120	F4033	VHS080078

Parts Cross Reference

C30477G121 - C31823G172

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30477G121	F4034	VHS080093
C30477G122	F4035	VHS080109
C30477G123	F4036	VHS080141
C30477G124	F4037	VHS080156
C30477G125	F4038	VHS080172
C30477G126	F4039	VHS080187
C30477G127	F4040	VHS080203
C30477G128	F4041	VHS090028
C30477G129	F4042	VHS090033
C30477G130	F4044	VHS090040
C30477G131	F4045	VHS090055
C30477G132	F4046	VHS090070
C30477G143	F4058	VHS090072
C30477G133	F4047	VHS090093
C30477G134	F4048	VHS090125
C30477G135	F4049	VHS095018
C30477G136	F4050	VHS095026
C30477G137	F4051	VHS095031
C30477G138	F4052	VHS095036
C30477G139	F4053	VHS095043
C30477G140	F4055	VHS095052
C30477G141	F4056	VHS095057
C30477G142	F4057	VHS095062
C30477G144	F4059	VHS095078
C30477G145	F4060	VHS095093
C30477G146	F4061	VHS095109
C30477G147	F4062	VHS095141
C30477G148	F4063	VHS095156
C30477G149	F4064	VHS095172
C30477G150	F4066	VHS095187
C30477G151	F4067	VHS095203
C30477G180	F4193	VHS110022
C30477G152	F4068	VHS110026
C30477G153	F4069	VHS110031
C30477G154	F4070	VHS110036
C30477G155	F4071	VHS110043
C30477G156	F4072	VHS110052
C30477G157	F4073	VHS110055
C30477G158	F4074	VHS110062
C30477G159	F4075	VHS110070

Part Number	OLD Nozzle Code	NEW Nozzle Code
C30477G160	F4077	VHS110078
C30477G161	F4078	VHS110093
C30477G162	F4079	VHS110109
C30477G181	F4195	VHS110156
C30477G200	F4101	VHS120026
C30477G201	F4102	VHS120031
C30477G202	F4103	VHS120036
C30477G203	F4104	VHS120043
C30477G204	F4105	VHS120052
C30477G205	F4106	VHS120055
C30477G206	F4107	VHS120062
C30477G207	F4108	VHS120070
C30477G208	F4109	VHS120078
C30477G209	F4110	VHS120093
C30477G210	F4112	VHS120109
C31823G70	F6299	VZ1/4S015026
C31823G72	F6301	VZ1/4S015036
C31823G02	F6002	VZ1/4S015040
C31823G74	F6303	VZ1/4S015043
C31823G76	F6305	VZ1/4S015052
C31823G78	F6307	VZ1/4S015055
C31823G80	F6309	VZ1/4S015062
C31823G82	F6311	VZ1/4S015070
C31823G84	F6313	VZ1/4S015078
C31823G86	F6315	VZ1/4S015093
C31823G88	F6317	VZ1/4S015109
C31823G90	F6319	VZ1/4S015141
C31823G04	F6004	VZ1/4S015156
C31823G92	F6321	VZ1/4S015156
C31823G94	F6323	VZ1/4S015187
C31823G96	F6325	VZ1/4S015203
C31823G98	F6327	VZ1/4S025026
C31823G100	F6011	VZ1/4S025036
C31823G102	F6013	VZ1/4S025043
C31823G104	F6015	VZ1/4S025052
C31823G106	F6017	VZ1/4S025057
C31823G108	F6019	VZ1/4S025062
C31823G110	F6022	VZ1/4S025072
C31823G112	F6024	VZ1/4S025078
C31823G114	F6026	VZ1/4S025093

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G116	F6028	VZ1/4S025109
C31823G118	F6030	VZ1/4S025141
C31823G120	F6033	VZ1/4S025156
C31823G122	F6035	VZ1/4S025172
C31823G124	F6037	VZ1/4S025187
C31823G126	F6039	VZ1/4S025203
C31823G06	F6006	VZ1/4S030055
C31823G08	F6008	VZ1/4S030077
C31823G10	F6010	VZ1/4S030093
C31823G12	F6032	VZ1/4S03156
C31823G16	F6076	VZ1/4S03250
C31823G130	F6044	VZ1/4S040031
C31823G132	F6046	VZ1/4S040036
C31823G134	F6048	VZ1/4S040043
C31823G136	F6050	VZ1/4S040052
C31823G138	F6052	VZ1/4S040057
C31823G14	F6054	VZ1/4S040062
C31823G140	F6055	VZ1/4S040062
C31823G142	F6057	VZ1/4S040072
C31823G144	F6059	VZ1/4S040078
C31823G146	F6061	VZ1/4S040093
C31823G148	F6063	VZ1/4S040109
C31823G150	F6066	VZ1/4S040141
C31823G152	F6068	VZ1/4S040156
C31823G154	F6070	VZ1/4S040172
C31823G156	F6072	VZ1/4S040187
C31823G158	F6074	VZ1/4S040203
C31823G18	F6098	VZ1/4S045040
C31823G20	F6120	VZ1/4S045055
C31823G22	F6142	VZ1/4S045070
C31823G26	F6186	VZ1/4S045125
C31823G28	F6208	VZ1/4S045156
C31823G30	F6230	VZ1/4S045187
C31823G160	F6077	VZ1/4S050026
C31823G162	F6079	VZ1/4S050036
C31823G164	F6081	VZ1/4S050043
C31823G166	F6083	VZ1/4S050052
C31823G168	F6085	VZ1/4S050057
C31823G170	F6088	VZ1/4S050062
C31823G172	F6090	VZ1/4S050072

Parts Cross Reference

C31823G174 - C31823G109

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G174	F6092	VZ1/4S050078
C31823G176	F6094	VZ1/4S050093
C31823G178	F6096	VZ1/4S050109
C31823G180	F6099	VZ1/4S050141
C31823G182	F6101	VZ1/4S050156
C31823G184	F6103	VZ1/4S050172
C31823G186	F6105	VZ1/4S050187
C31823G188	F6107	VZ1/4S050203
C31823G32	F6252	VZ1/4S060033
C31823G34	F6261	VZ1/4S060040
C31823G36	F6263	VZ1/4S060055
C31823G38	F6265	VZ1/4S060070
C31823G40	F6267	VZ1/4S060093
C31823G42	F6271	VZ1/4S060125
C31823G44	F6273	VZ1/4S060156
C31823G192	F6112	VZ1/4S065013
C31823G194	F6114	VZ1/4S065015
C31823G196	F6116	VZ1/4S065021
C31823G198	F6118	VZ1/4S065026
C31823G326	F6259	VZ1/4S065028
C31823G200	F6121	VZ1/4S065031
C31823G202	F6123	VZ1/4S065036
C31823G204	F6125	VZ1/4S065040
C31823G206	F6127	VZ1/4S065043
C31823G208	F6129	VZ1/4S065052
C31823G210	F6132	VZ1/4S065057
C31823G212	F6134	VZ1/4S065062
C31823G214	F6136	VZ1/4S065072
C31823G216	F6138	VZ1/4S065078
C31823G218	F6140	VZ1/4S065093
C31823G220	F6143	VZ1/4S065109
C31823G222	F6145	VZ1/4S065141
C31823G224	F6147	VZ1/4S065156
C31823G226	F6149	VZ1/4S065172
C31823G228	F6151	VZ1/4S065187
C31823G230	F6154	VZ1/4S065203
C31823G232	F6156	VZ1/4S073022
C31823G234	F6158	VZ1/4S073032
C31823G236	F6160	VZ1/4S073040
C31823G238	F6162	VZ1/4S073045

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G24	F6164	VZ1/4S073056
C31823G240	F6165	VZ1/4S073056
C31823G242	F6167	VZ1/4S073072
C31823G244	F6169	VZ1/4S080018
C31823G246	F6171	VZ1/4S080021
C31823G248	F6173	VZ1/4S080026
C31823G250	F6176	VZ1/4S080031
C31823G252	F6178	VZ1/4S080036
C31823G254	F6180	VZ1/4S080043
C31823G256	F6182	VZ1/4S080052
C31823G258	F6184	VZ1/4S080057
C31823G60	F6289	VZ1/4S080062
C31823G260	F6187	VZ1/4S080072
C31823G62	F6291	VZ1/4S080078
C31823G262	F6189	VZ1/4S080093
C31823G264	F6191	VZ1/4S080109
C31823G266	F6193	VZ1/4S080141
C31823G68	F6297	VZ1/4S080156
C31823G268	F6195	VZ1/4S080172
C31823G270	F6198	VZ1/4S080187
C31823G272	F6200	VZ1/4S080203
C31823G46	F6275	VZ1/4S090028
C31823G48	F6277	VZ1/4S090033
C31823G50	F6279	VZ1/4S090040
C31823G52	F6281	VZ1/4S090055
C31823G54	F6283	VZ1/4S090070
C31823G56	F6285	VZ1/4S090093
C31823G58	F6287	VZ1/4S090125
C31823G274	F6202	VZ1/4S095018
C31823G276	F6204	VZ1/4S095026
C31823G278	F6206	VZ1/4S095031
C31823G280	F6209	VZ1/4S095036
C31823G282	F6211	VZ1/4S095043
C31823G284	F6213	VZ1/4S095052
C31823G286	F6215	VZ1/4S095057
C31823G288	F6217	VZ1/4S095062
C31823G290	F6220	VZ1/4S095072
C31823G292	F6222	VZ1/4S095078
C31823G294	F6224	VZ1/4S095093
C31823G296	F6226	VZ1/4S095109

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G298	F6228	VZ1/4S095141
C31823G300	F6231	VZ1/4S095156
C31823G302	F6233	VZ1/4S095172
C31823G304	F6235	VZ1/4S095187
C31823G306	F6237	VZ1/4S095203
C31823G401	F6269	VZ1/4S110022
C31823G308	F6239	VZ1/4S110026
C31823G310	F6242	VZ1/4S110031
C31823G312	F6244	VZ1/4S110036
C31823G314	F6246	VZ1/4S110043
C31823G316	F6248	VZ1/4S110052
C31823G64	F6293	VZ1/4S110055
C31823G318	F6250	VZ1/4S110062
C31823G66	F6295	VZ1/4S110070
C31823G320	F6253	VZ1/4S110078
C31823G322	F6255	VZ1/4S110093
C31823G324	F6257	VZ1/4S110109
C31823G69	F6298	VZ1/8S015026
C31823G71	F6300	VZ1/8S015036
C31823G01	F6001	VZ1/8S015040
C31823G73	F6302	VZ1/8S015043
C31823G75	F6304	VZ1/8S015052
C31823G77	F6306	VZ1/8S015055
C31823G79	F6308	VZ1/8S015062
C31823G81	F6310	VZ1/8S015070
C31823G83	F6312	VZ1/8S015078
C31823G85	F6314	VZ1/8S015093
C31823G87	F6316	VZ1/8S015109
C31823G89	F6318	VZ1/8S015141
C31823G03	F6003	VZ1/8S015156
C31823G91	F6320	VZ1/8S015156
C31823G93	F6322	VZ1/8S015187
C31823G95	F6324	VZ1/8S015203
C31823G97	F6326	VZ1/8S025026
C31823G99	F6328	VZ1/8S025036
C31823G101	F6012	VZ1/8S025043
C31823G103	F6014	VZ1/8S025052
C31823G105	F6016	VZ1/8S025057
C31823G107	F6018	VZ1/8S025062
C31823G109	F6020	VZ1/8S025072

Parts Cross Reference

C31823G111 - C31823G289

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G111	F6023	VZ1/8S025078
C31823G113	F6025	VZ1/8S025093
C31823G115	F6027	VZ1/8S025109
C31823G117	F6029	VZ1/8S025141
C31823G11	F6021	VZ1/8S025156
C31823G119	F6031	VZ1/8S025156
C31823G121	F6034	VZ1/8S025172
C31823G123	F6036	VZ1/8S025187
C31823G125	F6038	VZ1/8S025203
C31823G05	F6005	VZ1/8S030055
C31823G07	F6007	VZ1/8S030077
C31823G09	F6009	VZ1/8S030093
C31823G13	F6043	VZ1/8S030187
C31823G15	F6065	VZ1/8S030250
C31823G127	F6040	VZ1/8S040026
C31823G129	F6042	VZ1/8S040031
C31823G131	F6045	VZ1/8S040036
C31823G133	F6047	VZ1/8S040043
C31823G135	F6049	VZ1/8S040052
C31823G137	F6051	VZ1/8S040057
C31823G139	F6053	VZ1/8S040062
C31823G141	F6056	VZ1/8S040062
C31823G143	F6058	VZ1/8S040072
C31823G145	F6060	VZ1/8S040078
C31823G147	F6062	VZ1/8S040093
C31823G149	F6064	VZ1/8S040109
C31823G151	F6067	VZ1/8S040156
C31823G153	F6069	VZ1/8S040172
C31823G155	F6071	VZ1/8S040187
C31823G157	F6073	VZ1/8S040203
C31823G17	F6087	VZ1/8S045040
C31823G19	F6109	VZ1/8S045055
C31823G21	F6131	VZ1/8S045070
C31823G23	F6153	VZ1/8S045093
C31823G25	F6175	VZ1/8S045125
C31823G27	F6197	VZ1/8S045156
C31823G29	F6219	VZ1/8S045187
C31823G159	F6075	VZ1/8S050026
C31823G161	F6078	VZ1/8S050036
C31823G163	F6080	VZ1/8S050043

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G165	F6082	VZ1/8S050052
C31823G167	F6084	VZ1/8S050057
C31823G169	F6086	VZ1/8S050062
C31823G171	F6089	VZ1/8S050072
C31823G173	F6091	VZ1/8S050078
C31823G175	F6093	VZ1/8S050093
C31823G177	F6095	VZ1/8S050109
C31823G179	F6097	VZ1/8S050141
C31823G181	F6100	VZ1/8S050156
C31823G183	F6102	VZ1/8S050172
C31823G185	F6104	VZ1/8S050187
C31823G187	F6106	VZ1/8S050203
C31823G31	F6241	VZ1/8S060033
C31823G33	F6260	VZ1/8S060040
C31823G35	F6262	VZ1/8S060055
C31823G37	F6264	VZ1/8S060070
C31823G39	F6266	VZ1/8S060093
C31823G41	F6270	VZ1/8S060125
C31823G43	F6272	VZ1/8S060156
C31823G191	F6111	VZ1/8S065013
C31823G193	F6113	VZ1/8S065015
C31823G195	F6115	VZ1/8S065021
C31823G197	F6117	VZ1/8S065026
C31823G325	F6258	VZ1/8S065028
C31823G199	F6119	VZ1/8S065031
C31823G201	F6122	VZ1/8S065036
C31823G203	F6124	VZ1/8S065040
C31823G205	F6126	VZ1/8S065043
C31823G207	F6128	VZ1/8S065052
C31823G209	F6130	VZ1/8S065057
C31823G211	F6133	VZ1/8S065062
C31823G213	F6135	VZ1/8S065072
C31823G215	F6137	VZ1/8S065078
C31823G217	F6139	VZ1/8S065093
C31823G219	F6141	VZ1/8S065109
C31823G221	F6144	VZ1/8S065141
C31823G223	F6146	VZ1/8S065156
C31823G225	F6148	VZ1/8S065172
C31823G227	F6150	VZ1/8S065187
C31823G229	F6152	VZ1/8S065203

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G231	F6155	VZ1/8S073022
C31823G233	F6157	VZ1/8S073032
C31823G235	F6159	VZ1/8S073040
C31823G237	F6161	VZ1/8S073045
C31823G239	F6163	VZ1/8S073056
C31823G241	F6166	VZ1/8S073072
C31823G243	F6168	VZ1/8S080018
C31823G245	F6170	VZ1/8S080021
C31823G247	F6172	VZ1/8S080026
C31823G249	F6174	VZ1/8S080031
C31823G251	F6177	VZ1/8S080036
C31823G253	F6179	VZ1/8S080043
C31823G255	F6181	VZ1/8S080052
C31823G257	F6183	VZ1/8S080057
C31823G59	F6288	VZ1/8S080062
C31823G259	F6185	VZ1/8S080072
C31823G61	F6290	VZ1/8S080078
C31823G261	F6188	VZ1/8S080093
C31823G263	F6190	VZ1/8S080109
C31823G265	F6192	VZ1/8S080141
C31823G67	F6296	VZ1/8S080156
C31823G267	F6194	VZ1/8S080172
C31823G269	F6196	VZ1/8S080187
C31823G271	F6199	VZ1/8S080203
C31823G45	F6274	VZ1/8S090028
C31823G47	F6276	VZ1/8S090033
C31823G49	F6278	VZ1/8S090040
C31823G51	F6280	VZ1/8S090055
C31823G53	F6282	VZ1/8S090070
C31823G55	F6284	VZ1/8S090093
C31823G57	F6286	VZ1/8S090125
C31823G273	F6201	VZ1/8S095018
C31823G275	F6203	VZ1/8S095026
C31823G277	F6205	VZ1/8S095031
C31823G279	F6207	VZ1/8S095036
C31823G281	F6210	VZ1/8S095043
C31823G283	F6212	VZ1/8S095052
C31823G285	F6214	VZ1/8S095057
C31823G287	F6216	VZ1/8S095062
C31823G289	F6218	VZ1/8S095072

Parts Cross Reference

C31823G291 - C31823G323

Part Number	OLD Nozzle Code	NEW Nozzle Code
C31823G291	F6221	VZ1/8S095078
C31823G293	F6223	VZ1/8S095093
C31823G295	F6225	VZ1/8S095109
C31823G297	F6227	VZ1/8S095141
C31823G299	F6229	VZ1/8S095156
C31823G301	F6232	VZ1/8S095172
C31823G303	F6234	VZ1/8S095187
C31823G305	F6236	VZ1/8S095203
C31823G400	F6268	VZ1/8S110022
C31823G307	F6238	VZ1/8S110026
C31823G309	F6240	VZ1/8S110031
C31823G311	F6243	VZ1/8S110036
C31823G313	F6245	VZ1/8S110043
C31823G315	F6247	VZ1/8S110052
C31823G63	F6292	VZ1/8S110055
C31823G317	F6249	VZ1/8S110062
C31823G65	F6294	VZ1/8S110070
C31823G319	F6251	VZ1/8S110078
C31823G321	F6254	VZ1/8S110078
C31823G323	F6256	VZ1/8S110109



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