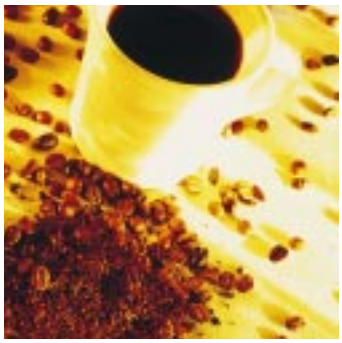
NEW

Maximum Free Passage SB Series SprayDry® Nozzles









Clog-resistant design for increased production, improved pump efficiency

Spraying Systems Co.®

New SprayDry® nozzles feature an improved core and cap design that optimizes free passage

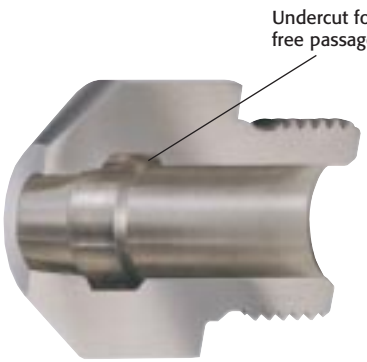
The new Maximum Free Passage (MFP) SB Series SprayDry nozzles are the latest addition to Spraying Systems Co.'s broad line. These nozzles feature a new core and cap design that offers increased free passage without changing spray performance. Clogging is reduced and production uptime is dramatically increased.



As a drop in replacement for the SB core and cap, the MFP SB Series core and cap provides the same flow rate, spray angle, and particle size distribution for any given SB core and orifice combination.

Increased spherical diameter of free passage of new MFP SB Series SprayDry nozzles over standard SB Series SprayDry nozzles

Core Size	Percent Increase
27 or 425	128
28 or 625	128
32 or 632	106
40 or 640	78
45 or 645	73
50 or 650	68



New MFP Series SB SprayDry Nozzle Cap (p/n CP48301-SS)

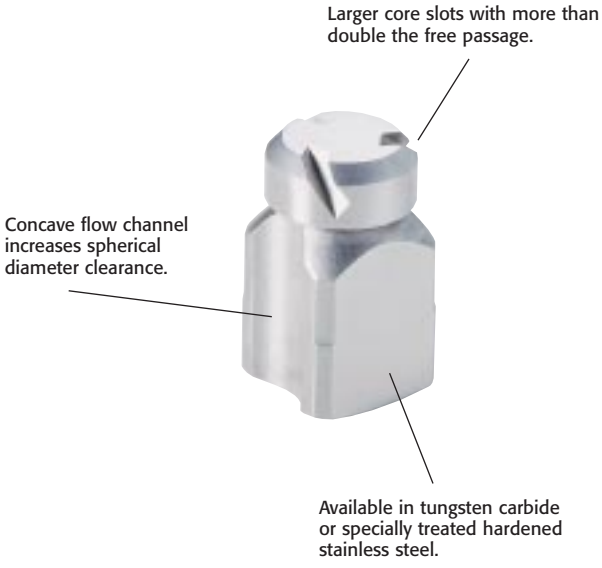
Increased free passage is just one reason to upgrade from your SB core

As always, the MFP SB Series, with at least two core slots, provides a superior spray pattern, particle size, and bulk density when compared to single slot designs.

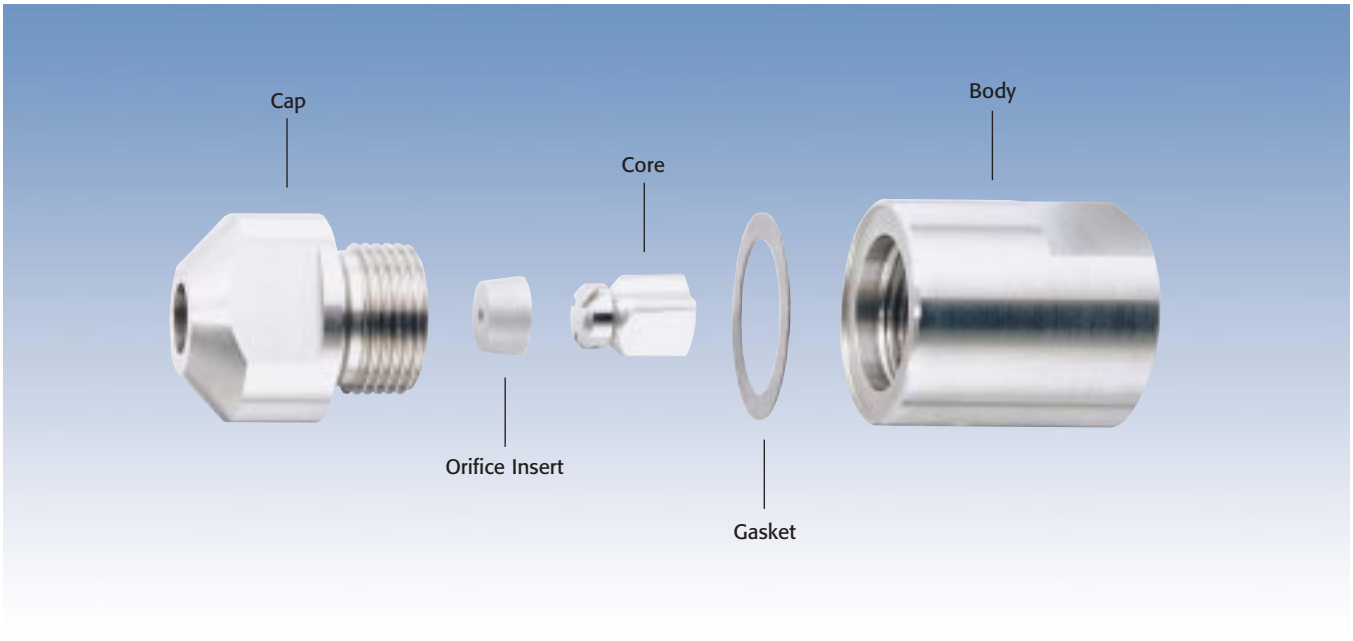
The number of slots on the new core has been cut in half, but the free passage area has more than doubled. The core body features sides that have been machined into a concave flow channel to significantly increase spherical diameter clearance and the internal geometry of the nozzle cap has been modified to eliminate restrictions.

Well suited for a variety of applications

The MFP SB Series SprayDry nozzles produce a hollow cone spray pattern of uniformly distributed atomized drops. They also offer a choice of drop sizes that are controlled by the nozzle's capacity and pressure. Ideal for commercial spray drying of powders in the dairy, food processing, chemical, biochemical, and pharmaceutical industries, the nozzles are suitable for use in all types of spray dryers, flow systems, and open- and closed-cycle installations.



New MFP Series SBB_ SprayDry Core



Materials of construction provide excellent corrosion and wear resistance

The MFP SB Series SprayDry® nozzles' body and cap are manufactured of type 303 stainless steel. The core is available in specially treated hardened stainless steel or tungsten carbide, which offers greater wear resistance. Tungsten carbide is suggested for any highly abrasive application. Fiber gaskets are standard with optional TEFLON® fluoropolymer resin or aluminum gaskets. The orifice inserts are available in specially treated hardened stainless steel or tungsten carbide.

Choose from a variety of cores, orifice inserts, and spray angles

Featuring a choice of 120 interchangeable orifice insert-core combinations, the nozzles feature capacity sizes based on water ranging from 55 to 570 gph at 1000 psi (210 to 2170 l/hr at 70 bar) with spray angles from 34° to 109°. Larger capacity orifice insert-core combinations can be used at lower pressures to minimize nozzle and pump wear. Maximum pressure is 7000 psi (483 bar) with a maximum recommended temperature of 300°F (150°C) using the standard fiber gasket. The nozzle is available is 1/4", 3/8", and 1/2" NPT (F) or BSPT (F) inlet pipe connections.

Learn more about the Maximum Free Passage SB Series SprayDry Nozzles

Additional information is available on the MFP SB Series SprayDry nozzles. Contact your local Spraying Systems Co. sales engineer to learn more or visit our Web site at www.spray.com.

Teflon is a registered trademark of E.I. DuPont de Nemours and Company.

Maximum Free Passage SB Series SprayDry® Nozzles Specifications

Performance Data

Orifice Insert		Core Size No.		Spray Angle Nom.	Water Capacity – GPH Gallons Per Hour (L/H Liters Per Hour)*									
Orifice Dia. (mm)	Size No.	Flat Top	Cup Top		500 psi (35 bar)	1000 psi (70 bar)	1500 psi (100 bar)	2000 psi (150 bar)	2500 psi (200 bar)	3000 psi (250 bar)	3500 psi (300 bar)	4000 psi (350 bar)	5000 psi (400 bar)	7000 psi (450 bar)
.055 (1.39)	54	27	425	64º	38.9 (148)	55.0 (210)	67.4 (251)	77.8 (307)	87.0 (355)	95.3 (396)	103 (434)	110 (469)	123 (501)	146 (532)
.0595 (1.51)	53	27	425	69º	42.9 (164)	60.7 (232)	74.3 (277)	85.8 (339)	96.0 (391)	105 (438)	114 (479)	121 (518)	136 (553)	161 (587)
.0635 (1.61)	52	27	425	73º	46.5 (177)	65.8 (251)	80.6 (300)	93.1 (367)	104 (424)	114 (474)	123 (520)	132 (561)	147 (600)	174 (636)
.067 (1.70)	51	27	425	76º	49.9 (190)	70.5 (269)	86.3 (321)	99.7 (394)	111 (455)	122 (508)	132 (557)	141 (601)	158 (643)	187 (682)
.070 (1.77)	50	27	425	81º	52.7 (201)	74.5 (284)	91.2 (340)	105 (416)	118 (480)	129 (537)	139 (588)	149 (635)	167 (679)	197 (720)
.055 (1.39)	54	28	625	58º	53.2 (203)	75.2 (287)	92.1 (343)	106 (420)	119 (485)	130 (542)	141 (594)	150 (641)	168 (686)	199 (727)
.073 (1.85)	49	27	425	82º	55.9 (213)	79.0 (301)	96.8 (360)	112 (441)	125 (509)	137 (569)	148 (624)	158 (674)	177 (720)	209 (764)
.0595 (1.51)	53	28	625	63º	58.3 (223)	82.5 (315)	101 (376)	117 (461)	130 (532)	143 (595)	154 (651)	165 (704)	184 (752)	218 (798)
.076 (1.93)	48	27	425	84º	58.8 (224)	83.2 (317)	102 (379)	118 (465)	132 (536)	144 (600)	156 (657)	166 (710)	186 (759)	220 (805)
.055 (1.39)	54	32	632	50º	62.6 (239)	88.6 (338)	109 (404)	125 (495)	140 (571)	153 (639)	166 (700)	177 (756)	198 (808)	234 (857)
.0635 (1.61)	52	28	625	66º	63.0 (240)	89.1 (340)	109 (406)	126 (497)	141 (574)	154 (642)	167 (704)	178 (760)	199 (812)	236 (862)
.085 (2.15)	46	27	425	86º	63.8 (243)	90.2 (344)	110 (411)	128 (504)	143 (582)	156 (650)	169 (712)	180 (769)	202 (822)	239 (872)
.055 (1.39)	54	40	640	43º	67.2 (256)	95.0 (362)	116 (433)	134 (530)	150 (612)	165 (685)	178 (750)	190 (810)	212 (866)	251 (919)
.067 (1.70)	51	28	625	70º	67.2 (256)	95.1 (363)	116 (434)	134 (531)	150 (613)	165 (685)	178 (751)	190 (811)	213 (867)	252 (920)
.086 (2.18)	44	27	425	88º	68.7 (262)	97.2 (371)	119 (443)	137 (543)	154 (627)	168 (701)	182 (768)	194 (829)	217 (886)	257 (940)
.0595 (1.51)	53	32	632	54º	69.3 (264)	98.0 (374)	120 (447)	139 (547)	155 (632)	170 (706)	183 (774)	196 (836)	219 (894)	259 (948)
.070 (1.77)	50	28	625	78º	70.7 (270)	100 (381)	122 (456)	141 (558)	158 (645)	173 (721)	187 (790)	200 (853)	224 (912)	265 (967)
.0595 (1.51)	53	40	640	48º	74.2 (283)	105 (400)	129 (479)	148 (586)	166 (677)	182 (757)	196 (829)	210 (896)	235 (957)	278 (1010)
.073 (1.85)	49	28	625	75º	75.0 (286)	106 (404)	130 (483)	150 (592)	168 (683)	184 (764)	198 (837)	212 (904)	237 (966)	280 (1020)
.055 (1.39)	54	45	645	37º	75.7 (289)	107 (408)	131 (488)	151 (597)	169 (690)	185 (771)	200 (845)	214 (913)	239 (976)	283 (1030)
.0635 (1.61)	52	32	632	58º	75.7 (289)	107 (408)	131 (488)	151 (597)	169 (690)	185 (771)	200 (845)	214 (913)	239 (976)	283 (1030)
.094 (2.38)	42	27	425	90º	76.4 (291)	108 (412)	132 (492)	153 (603)	171 (696)	187 (778)	202 (853)	216 (921)	241 (985)	286 (1040)
.076 (1.93)	48	28	625	76º	78.5 (299)	111 (423)	136 (506)	157 (620)	176 (716)	192 (800)	208 (876)	222 (947)	248 (1010)	294 (1070)
.098 (2.48)	40	27	425	92º	80.6 (307)	114 (435)	140 (520)	161 (637)	180 (735)	197 (822)	213 (900)	228 (972)	255 (1030)	302 (1100)
.067 (1.70)	51	32	632	61º	81.3 (310)	115 (439)	141 (524)	163 (642)	182 (741)	199 (829)	215 (908)	230 (981)	257 (1040)	304 (1110)
.055 (1.39)	54	50	650	34º	82.0 (313)	116 (442)	142 (529)	164 (648)	183 (748)	201 (836)	217 (916)	232 (989)	259 (1050)	307 (1120)
.0635 (1.61)	52	40	640	52º	82.0 (313)	116 (442)	142 (529)	164 (648)	183 (748)	201 (836)	217 (916)	232 (989)	259 (1050)	307 (1120)
.104 (2.64)	37	27	425	94º	82.7 (316)	117 (446)	143 (533)	165 (653)	185 (754)	203 (843)	219 (924)	234 (998)	262 (1060)	310 (1130)
.081 (2.05)	46	28	625	78º	84.9 (324)	120 (458)	147 (547)	170 (670)	190 (774)	208 (865)	224 (948)	240 (1020)	268 (1090)	317 (1160)
.120 (3.04)	35	27	425	96º	84.9 (324)	120 (458)	147 (547)	170 (670)	190 (774)	208 (865)	224 (948)	240 (1020)	268 (1090)	317 (1160)

Note: In the table above, the psi and bar values are not direct conversions of each other. Also, the GPH and L/H values are not direct conversions of each other.
* Tabulation is based on spraying water at temperatures of 70ºF (21ºC).

Maximum Free Passage SB Series SprayDry® Nozzles Specifications

Performance Data

Orifice Insert		Core Size No.		Spray Angle Nom.	Water Capacity – GPH Gallons Per Hour (L/H Liters Per Hour)*									
Orifice Dia. (mm)	Size No.	Flat Top	Cup Top		500 psi (35 bar)	1000 psi (70 bar)	1500 psi (100 bar)	2000 psi (150 bar)	2500 psi (200 bar)	3000 psi (250 bar)	3500 psi (300 bar)	4000 psi (350 bar)	5000 psi (400 bar)	7000 psi (450 bar)
.0595 (1.51)	53	45	645	41º	85.6 (326)	121 (462)	148 (552)	171 (676)	191 (780)	210 (872)	226 (955)	242 (1030)	271 (1100)	320 (1170)
.070 (1.77)	50	32	632	65º	86.3 (329)	122 (465)	149 (556)	173 (681)	193 (787)	211 (879)	228 (963)	244 (1040)	273 (1110)	323 (1170)
.067 (1.70)	51	40	640	56º	88.4 (337)	125 (477)	153 (570)	177 (698)	198 (806)	217 (901)	234 (987)	250 (1060)	280 (1130)	331 (1200)
.116 (2.94)	32	27	425	98º	88.4 (337)	125 (477)	153 (570)	177 (698)	198 (806)	217 (901)	234 (987)	250 (1060)	280 (1130)	331 (1200)
.086 (2.18)	44	28	625	80º	91.2 (348)	129 (492)	158 (588)	182 (720)	204 (832)	223 (930)	241 (1010)	258 (1100)	288 (1170)	341 (1240)
.073 (1.85)	49	32	632	67º	91.9 (351)	130 (496)	159 (593)	184 (726)	208 (838)	225 (937)	243 (1020)	260 (1100)	291 (1180)	344 (1250)
.0595 (1.51)	53	50	650	38º	92.6 (353)	131 (500)	160 (597)	185 (731)	207 (845)	227 (944)	245 (1030)	262 (1110)	293 (1190)	347 (1260)
.120 (3.04)	31	27	425	99º	92.6 (353)	131 (500)	160 (597)	185 (731)	207 (845)	227 (944)	245 (1030)	262 (1110)	293 (1190)	347 (1260)
.070 (1.77)	50	40	640	59º	94.0 (359)	133 (507)	163 (606)	188 (743)	210 (857)	230 (959)	249 (1050)	266 (1130)	297 (1210)	352 (1280)
.0635 (1.61)	52	45	645	45º	94.8 (361)	134 (511)	164 (611)	190 (748)	212 (864)	232 (966)	251 (1050)	268 (1140)	300 (1220)	355 (1290)
.076 (1.93)	48	32	632	58º	96.9 (369)	137 (523)	168 (625)	194 (765)	217 (883)	237 (988)	256 (1080)	274 (1160)	306 (1240)	362 (1320)
.129 (3.27)	30	27	425	101º	98.3 (375)	139 (530)	170 (634)	197 (776)	220 (896)	241 (1000)	260 (1090)	278 (1180)	311 (1260)	368 (1340)
.073 (1.85)	49	40	640	61º	100 (383)	142 (542)	174 (647)	201 (793)	225 (915)	246 (1020)	266 (1120)	284 (1210)	318 (1290)	376 (1370)
.094 (2.38)	42	28	625	83º	101 (386)	143 (545)	175 (652)	202 (798)	226 (922)	248 (1030)	268 (1120)	286 (1210)	320 (1300)	378 (1380)
.0635 (1.61)	52	50	650	41º	103 (394)	146 (557)	179 (666)	206 (815)	231 (941)	253 (1050)	273 (1150)	292 (1240)	326 (1330)	386 (1410)
.081 (2.05)	46	32	632	70º	105 (402)	149 (568)	182 (679)	211 (832)	236 (961)	258 (1070)	279 (1170)	298 (1270)	333 (1350)	394 (1440)
.076 (1.93)	48	40	640	62º	106 (405)	150 (572)	184 (684)	212 (838)	237 (967)	260 (1080)	281 (1180)	300 (1270)	335 (1360)	397 (1450)
.136 (3.45)	29	27	425	103º	106 (405)	150 (572)	184 (684)	212 (838)	237 (967)	260 (1080)	281 (1180)	300 (1270)	355 (1360)	397 (1450)
.098 (2.48)	40	28	625	84º	107 (410)	152 (580)	186 (693)	215 (849)	240 (980)	263 (1090)	284 (1200)	304 (1290)	340 (1380)	402 (1460)
.070 (1.77)	50	45	645	53º	111 (423)	157 (599)	192 (716)	222 (877)	248 (1010)	272 (1130)	294 (1230)	314 (1330)	351 (1430)	415 (1510)
.104 (2.64)	37	28	625	86º	112 (426)	158 (603)	194 (720)	223 (882)	250 (1010)	274 (1130)	296 (1240)	316 (1340)	353 (1440)	418 (1520)
.067 (1.70)	51	50	650	44º	114 (434)	161 (614)	197 (734)	228 (899)	255 (1030)	279 (1160)	301 (1270)	322 (1370)	360 (1460)	426 (1550)
.086 (2.18)	44	32	632	73º	114 (434)	161 (614)	197 (734)	228 (899)	255 (1030)	279 (1160)	301 (1270)	322 (1370)	360 (1460)	426 (1550)
.144 (3.65)	27	27	425	105º	115 (440)	163 (622)	200 (743)	231 (910)	258 (1050)	282 (1170)	305 (1280)	326 (1390)	364 (1480)	431 (1570)
.081 (2.05)	46	40	640	65º	116 (442)	164 (626)	201 (748)	232 (916)	259 (1050)	284 (1180)	307 (1290)	328 (1390)	367 (1490)	434 (1580)
.110 (2.79)	35	28	625	88º	117 (448)	166 (633)	203 (757)	235 (927)	262 (1070)	288 (1190)	311 (1310)	332 (1410)	371 (1510)	439 (1600)
.073 (1.85)	49	45	645	48º	119 (453)	168 (641)	206 (766)	238 (938)	266 (1080)	291 (1210)	314 (1320)	336 (1430)	376 (1530)	444 (1620)
.070 (1.77)	50	50	650	46º	120 (458)	170 (648)	208 (775)	240 (949)	269 (1090)	294 (1220)	318 (1340)	340 (1440)	380 (1550)	450 (1640)
.116 (2.94)	32	28	625	90º	122 (464)	172 (656)	211 (784)	243 (960)	272 (1100)	298 (1230)	322 (1350)	344 (1460)	385 (1560)	455 (1600)
.152 (3.86)	24	27	425	107º	122 (467)	173 (660)	212 (789)	245 (966)	274 (1110)	300 (1240)	324 (1360)	346 (1470)	387 (1570)	458 (1670)

Note: In the table above, the psi and bar values are not direct conversions of each other. Also, the GPH and L/H values are not direct conversions of each other.
* Tabulation is based on spraying water at temperatures of 70ºF (21ºC).

Maximum Free Passage SB Series SprayDry® Nozzles Specifications

Performance Data (continued)

Orifice Insert		Core Size No.		Spray Angle Nom.	Water Capacity – GPH Gallons Per Hour (L/H Liters Per Hour)*									
Orifice Dia. (mm)	Size No.	Flat Top	Cup Top		500 psi (35 bar)	1000 psi (70 bar)	1500 psi (100 bar)	2000 psi (150 bar)	2500 psi (200 bar)	3000 psi (250 bar)	3500 psi (300 bar)	4000 psi (350 bar)	5000 psi (400 bar)	7000 psi (450 bar)
.086 (2.18)	44	40	640	67º	126 (480)	178 (679)	218 (811)	252 (994)	281 (1140)	308 (1280)	333 (1400)	356 (1510)	398 (1620)	471 (1720)
.076 (1.93)	48	45	645	56º	127 (483)	179 (683)	219 (816)	253 (999)	283 (1150)	310 (1290)	335 (1410)	358 (1520)	400 (1630)	474 (1730)
.120 (3.04)	31	28	625	90º	127 (483)	179 (683)	219 (816)	253 (999)	283 (1150)	310 (1290)	335 (1410)	358 (1520)	400 (1630)	474 (1730)
.094 (2.38)	42	32	632	75º	127 (485)	180 (687)	220 (821)	255 (1000)	285 (1160)	312 (1290)	337 (1420)	360 (1530)	402 (1640)	476 (1740)
.073 (1.85)	49	50	650	48º	129 (491)	182 (694)	223 (830)	257 (1010)	288 (1170)	315 (1310)	340 (1430)	364 (1550)	407 (1650)	482 (1760)
.161 (4.08)	20	27	425	109º	132 (504)	187 (713)	229 (853)	264 (1040)	296 (1200)	324 (1340)	350 (1470)	374 (1590)	418 (1700)	495 (1800)
.129 (3.27)	30	28	625	93º	136 (518)	192 (732)	235 (875)	272 (1070)	304 (1230)	333 (1380)	359 (1510)	384 (1630)	429 (1750)	508 (1850)
.076 (1.93)	48	50	650	49º	136 (521)	193 (736)	236 (880)	273 (1070)	305 (1240)	334 (1390)	361 (1520)	386 (1640)	432 (1750)	511 (1860)
.098 (2.48)	40	32	632	77º	136 (521)	193 (736)	236 (880)	273 (1070)	305 (1240)	334 (1390)	361 (1520)	386 (1640)	432 (1750)	511 (1860)
.081 (2.05)	46	45	645	58º	141 (537)	199 (759)	244 (907)	281 (1110)	315 (1280)	345 (1430)	372 (1570)	398 (1690)	445 (1810)	527 (1920)
.094 (2.38)	42	40	640	70º	141 (537)	199 (759)	244 (907)	281 (1110)	315 (1280)	345 (1430)	372 (1570)	398 (1690)	445 (1810)	527 (1920)
.104 (2.64)	37	32	632	79º	143 (545)	202 (770)	247 (921)	286 (1120)	319 (1300)	350 (1450)	378 (1590)	404 (1720)	452 (1840)	534 (1950)
.136 (3.45)	29	28	625	96º	146 (558)	206 (786)	252 (939)	291 (1150)	326 (1320)	357 (1480)	385 (1620)	412 (1750)	461 (1870)	545 (1990)
.110 (2.79)	35	32	632	81º	148 (564)	209 (797)	256 (953)	296 (1160)	330 (1340)	362 (1500)	391 (1650)	418 (1780)	467 (1900)	553 (2020)
.081 (2.05)	46	50	650	51º	150 (572)	212 (809)	260 (956)	300 (1180)	335 (1360)	367 (1520)	397 (1670)	424 (1800)	474 (1930)	561 (2050)
.098 (2.48)	40	40	640	72º	152 (580)	215 (820)	263 (980)	304 (1200)	340 (1380)	372 (1540)	402 (1690)	430 (1830)	481 (1960)	569 (2070)
.086 (2.18)	44	45	645	61º	154 (588)	218 (831)	267 (994)	308 (1210)	345 (1400)	378 (1570)	408 (1720)	436 (1850)	487 (1980)	577 (2100)
.116 (2.94)	32	32	632	82º	154 (588)	218 (831)	267 (994)	308 (1210)	345 (1400)	378 (1570)	408 (1720)	436 (1850)	487 (1980)	577 (2100)
.144 (3.65)	27	28	625	97º	158 (601)	223 (851)	273 (1010)	315 (1240)	353 (1430)	386 (1600)	417 (1760)	446 (1900)	499 (2030)	590 (2150)
.120 (3.04)	31	32	632	83º	161 (615)	228 (870)	279 (1030)	322 (1270)	360 (1460)	395 (1640)	427 (1800)	456 (1940)	510 (2070)	603 (2200)
.104 (2.64)	37	40	640	74º	163 (623)	231 (881)	283 (1050)	327 (1280)	365 (1480)	400 (1660)	432 (1820)	462 (1970)	517 (2100)	611 (2230)
.086 (2.18)	44	50	650	54º	167 (637)	236 (900)	289 (1070)	334 (1310)	373 (1520)	409 (1700)	442 (1650)	472 (2010)	528 (2150)	624 (2280)
.152 (3.86)	24	28	625	99º	170 (647)	240 (915)	294 (1090)	339 (1340)	379 (1540)	416 (1720)	449 (1890)	480 (2040)	537 (2180)	635 (2320)
.110 (2.79)	35	40	640	75º	170 (650)	241 (919)	295 (1090)	341 (1340)	381 (1550)	417 (1730)	451 (1900)	482 (2050)	539 (2190)	638 (2330)
.094 (2.38)	42	45	645	64º	175 (666)	247 (942)	303 (1120)	349 (1370)	391 (1590)	428 (1780)	462 (1950)	494 (2100)	552 (2250)	654 (2380)
.129 (3.27)	30	32	632	85º	180 (688)	255 (973)	312 (1650)	361 (1420)	403 (1640)	442 (1830)	477 (2010)	510 (2170)	570 (2320)	675 (2460)
.116 (2.94)	32	40	640	76º	184 (701)	260 (992)	318 (1180)	368 (1450)	411 (1670)	450 (1870)	486 (2050)	520 (2210)	581 (2370)	688 (2510)
.161 (4.08)	20	28	625	101º	186 (709)	263 (1000)	322 (1190)	372 (1460)	416 (1690)	456 (1890)	492 (2070)	526 (2240)	588 (2390)	696 (2540)
.094 (2.38)	42	50	650	56º	188 (717)	266 (1010)	326 (1210)	376 (1480)	421 (1710)	461 (1910)	498 (2100)	532 (2260)	595 (2420)	704 (2570)
.098 (2.48)	40	45	645	66º	190 (726)	269 (1020)	329 (1220)	380 (1500)	425 (1730)	466 (1930)	503 (2120)	538 (2290)	602 (2450)	712 (2600)

Note: In the table above, the psi and bar values are not direct conversions of each other. Also, the GPH and L/H values are not direct conversions of each other.
* Tabulation is based on spraying water at temperatures of 70ºF (21ºC).

Maximum Free Passage SB Series SprayDry® Nozzles Specifications

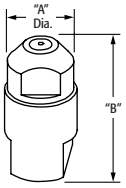
Performance Data (continued)

Orifice Insert		Core Size No.		Spray Angle Nom.	Water Capacity – GPH Gallons Per Hour (L/H Liters Per Hour)*									
Orifice Dia. (mm)	Size No.	Flat Top	Cup Top		500 psi (35 bar)	1000 psi (70 bar)	1500 psi (100 bar)	2000 psi (150 bar)	2500 psi (200 bar)	3000 psi (250 bar)	3500 psi (300 bar)	4000 psi (350 bar)	5000 psi (400 bar)	7000 psi (450 bar)
.120 (3.04)	31	40	640	78º	194 (742)	275 (1040)	337 (1250)	389 (1530)	435 (1770)	476 (1980)	514 (2170)	550 (2340)	615 (2500)	728 (2650)
.136 (3.45)	29	32	632	87º	194 (742)	275 (1040)	337 (1250)	389 (1530)	435 (1770)	476 (1980)	514 (2170)	550 (2340)	615 (2500)	728 (2650)
.098 (2.48)	40	50	650	58º	204 (777)	288 (1090)	353 (1310)	407 (1600)	455 (1850)	499 (2070)	539 (2270)	576 (2450)	644 (2620)	762 (2780)
.104 (2.64)	37	45	645	68º	206 (785)	291 (1100)	356 (1320)	412 (1620)	460 (1870)	504 (2090)	544 (2290)	582 (2480)	651 (2650)	770 (2810)
.144 (3.65)	27	32	632	89º	213 (812)	301 (1140)	369 (1370)	426 (1680)	476 (1940)	521 (2160)	563 (2370)	602 (2560)	673 (2740)	796 (2910)
.110 (2.79)	35	45	645	70º	215 (820)	304 (1150)	372 (1380)	430 (1690)	481 (1950)	527 (2190)	569 (2400)	608 (2590)	680 (2770)	804 (2930)
.129 (3.27)	30	40	640	80º	215 (820)	304 (1150)	372 (1380)	430 (1690)	481 (1950)	527 (2190)	569 (2400)	608 (2590)	680 (2770)	804 (2930)
.104 (2.64)	37	50	650	60º	216 (825)	306 (1160)	375 (1390)	433 (1700)	484 (1970)	530 (2200)	572 (2410)	612 (2600)	684 (2790)	810 (2950)
.116 (2.94)	32	45	645	71º	228 (868)	322 (1220)	394 (1480)	455 (1790)	509 (2070)	558 (2320)	602 (2540)	644 (2740)	720 (2930)	852 (3110)
.152 (3.86)	24	32	632	90º	228 (868)	322 (1220)	394 (1460)	455 (1790)	509 (2070)	558 (2320)	602 (2540)	644 (2740)	720 (2930)	852 (3110)
.110 (2.79)	35	50	650	75º	229 (874)	324 (1230)	397 (1470)	458 (1800)	512 (2080)	561 (2330)	606 (2550)	648 (2760)	724 (2950)	857 (3130)
.136 (3.45)	29	40	640	81º	235 (895)	332 (1260)	407 (1510)	470 (1850)	525 (2140)	575 (2390)	621 (2620)	664 (2830)	742 (3020)	878 (3210)
.120 (3.04)	31	45	645	72º	242 (922)	342 (1300)	419 (1550)	484 (1900)	541 (2200)	592 (2460)	640 (2700)	684 (2910)	765 (3110)	905 (3300)
.116 (2.94)	32	50	650	63º	247 (941)	349 (1330)	427 (1590)	494 (1940)	552 (2250)	604 (2510)	653 (2750)	698 (2970)	780 (3180)	923 (3370)
.161 (4.08)	20	32	632	92º	248 (947)	351 (1330)	430 (1600)	496 (1950)	555 (2260)	608 (2530)	657 (2770)	702 (2990)	785 (3200)	929 (3390)
.144 (3.65)	27	40	640	83º	252 (963)	357 (1360)	437 (1620)	505 (1990)	564 (2300)	618 (2570)	668 (2810)	714 (3040)	798 (3250)	945 (3450)
.120 (3.04)	31	50	650	64º	260 (990)	367 (1390)	449 (1670)	519 (2040)	580 (2360)	636 (2640)	687 (2890)	734 (3130)	821 (3340)	971 (3540)
.129 (3.27)	30	45	645	74º	268 (1020)	379 (1440)	464 (1720)	536 (2110)	599 (2440)	656 (2730)	709 (2990)	758 (3230)	847 (3450)	1003 (3660)
.152 (3.86)	24	40	640	84º	270 (1030)	382 (1450)	468 (1740)	540 (2130)	604 (2460)	662 (2750)	715 (3010)	764 (3250)	854 (3480)	1011 (3690)
.136 (3.45)	29	45	645	75º	288 (1100)	408 (1550)	500 (1860)	577 (2270)	645 (2630)	707 (2940)	763 (3220)	816 (3470)	912 (3720)	1079 (3940)
.129 (3.27)	30	50	650	66º	290 (1100)	410 (1560)	502 (1860)	580 (2280)	648 (2640)	710 (2950)	767 (3230)	820 (3490)	917 (3730)	1085 (3960)
.161 (4.08)	20	40	640	85º	295 (1120)	417 (1590)	511 (1900)	590 (2320)	659 (2680)	722 (3000)	780 (3290)	834 (3550)	932 (3800)	1103 (4030)
.136 (3.45)	29	50	650	67º	312 (1180)	441 (1680)	540 (2010)	624 (2460)	697 (2840)	764 (2170)	825 (3480)	882 (3760)	986 (4020)	1167 (4260)
.144 (3.65)	27	45	645	76º	315 (1200)	446 (1700)	546 (2030)	631 (2490)	705 (2870)	772 (3210)	834 (3520)	892 (3800)	997 (4060)	1180 (4310)
.144 (3.65)	27	50	650	68º	339 (1290)	480 (1830)	588 (2180)	679 (2680)	759 (3090)	831 (3450)	898 (3790)	960 (4090)	1073 (4370)	1270 (4640)
.152 (3.86)	24	45	645	77º	340 (1290)	481 (1830)	589 (2190)	680 (2680)	761 (3100)	833 (3460)	900 (3790)	962 (4100)	1076 (4380)	1273 (4650)
.144 (3.65)	27	45	645	76º	351 (1330)	496 (1890)	607 (2260)	701 (2760)	784 (3190)	859 (3570)	928 (3910)	992 (4230)	1109 (4520)	1312 (4790)
.152 (3.86)	24	50	650	78º	366 (1390)	517 (1970)	633 (2350)	731 (2580)	817 (3330)	895 (3720)	967 (4080)	1034 (4400)	1156 (4710)	1368 (4990)
.161 (4.08)	20	45	645	78º	368 (1400)	521 (1980)	638 (2370)	737 (2900)	824 (3350)	902 (3750)	975 (4110)	1042 (4440)	1165 (4750)	1378 (5030)
.161 (4.08)	20	50	650	69º	403 (1530)	570 (2170)	698 (2590)	806 (3180)	901 (3670)	987 (4100)	1066 (4500)	1140 (4860)	1275 (5190)	1508 (5510)

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Maximum Free Passage SB Series SprayDry® Nozzles Specifications

Dimensions and Weights



Nozzle Type	Inlet Conn. NPT/BSPT (F)	Overall Dimensions		Net Weight
		"A" Dia. (mm)	"B" Length (mm)	
SB & SB-MFP	1/4"	1-1/2" (38.1)	2-1/2" (63.5)	1 lb. (0.4 kg)
	3/8"	1-1/2" (38.1)	2-1/2" (63.5)	1 lb. (0.4 kg)
	1/2"	1-1/2" (38.1)	2-1/2" (63.5)	1 lb. (0.4 kg)

Orifice Insert/Core Materials

Orifice Insert Type	Core Type	Material
SIBA	SBBA	Hardened Stainless Steel
	SBBA - MFP	
SIBY	SBBY	Tungsten Carbide
	SBBY - MFP	

Gasket Material Options

Gasket Material	Maximum Recommended Operating Temperature
Fiber	300˚F (150˚C)
TEFLON	300˚F (150˚C)
Aluminum	1000˚F (540˚C)

SB Core Sizes – Flat Top/Cup Top

Core Size	Number of Slots	Nominal Slot Width (mm)
27/425	4	0.025" (0.635)
28/625	6	0.025" (0.635)
32/632	6	0.032" (0.813)
40/640	6	0.042" (1.02)
45/645	6	0.045" (1.14)
50/650	6	0.051" (1.29)

SB-MFP Core Sizes – Flat Top/Cup Top

Core Size	Number of Slots	Nominal Slot Width (mm)
27/425	2	0.057" (1.45)
28/625	3	0.057" (1.45)
32/632	3	0.066" (1.68)
40/640	3	0.071" (1.80)
45/645	3	0.078" (1.98)
50/650	3	0.084" (2.13)

Ordering Information

For Complete SB Nozzle:

1/4 SB + SIBY54 + SBBY27

- 1/4 — Inlet Connection
- SB — Nozzle Type
- SIBY54 — Orifice Insert
- SBBY27 — Core

For Complete SB-MFP Nozzle:

1/4 SB-MFP + SIBY54 + SBBY27 - MFP

- 1/4 — Inlet Connection
- SB-MFP — Nozzle Type
- SIBY54 — Orifice Insert
- SBBY27 - MFP — Core

For Orifice Insert No.:

SIBY 27

- SIBY — Orifice Insert Type
- 27 — Orifice Insert Size No.

For Core No.:

SBBY 27

- SBBY — Core Type
- 27 — Core Size No.

For Core No.:

SBBY 27-MFP

- SBBY — Core Type
- 27-MFP — Core Size No.

Represented by:

Spraying Systems Co.®
P.O. Box 7900 • Wheaton, Illinois 60189-7900 USA
Phone 1-800-95-SPRAY • Fax 1-888-95-SPRAY
Outside the U.S., Phone 1(630) 665-5000 • Fax 1(630) 260-0842
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