

# **Dplus SERIES**

FULL CONE NOZZLE

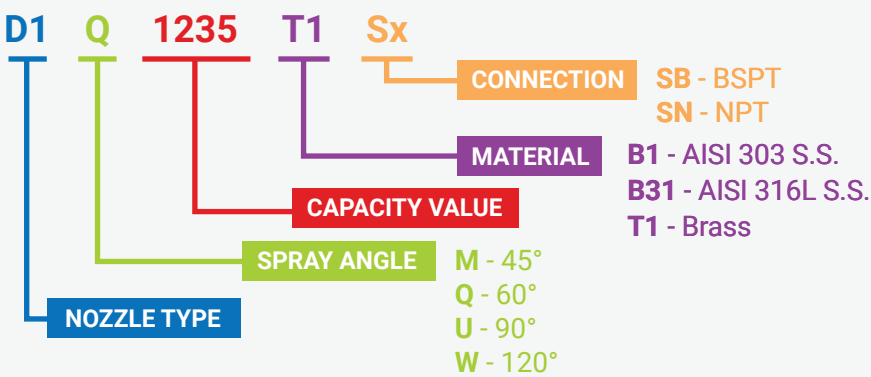
Dplus series nozzle tips provide a full cone jet with a characteristic spray angle which is independent from the pressure input in a range from 1 bar to 10 bar. Spray distribution is perfectly balanced and symmetric with a very uniform coverage of the circular impact area.

The wide internal passages prevents nozzle clogging even from large particles, while the internal controlled turbulence keep its performance stable and reliable over the all working pressure range. The large passages guarantees low local velocities meaning a high wear resistance.

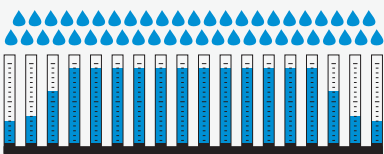
Dplus series full cone jet nozzles are available in a wide range of different capacities, spray angles and materials.



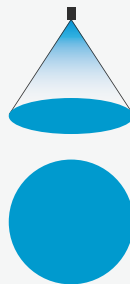
## PNR CODING



## SPRAY COVERAGE



*Spray distribution*

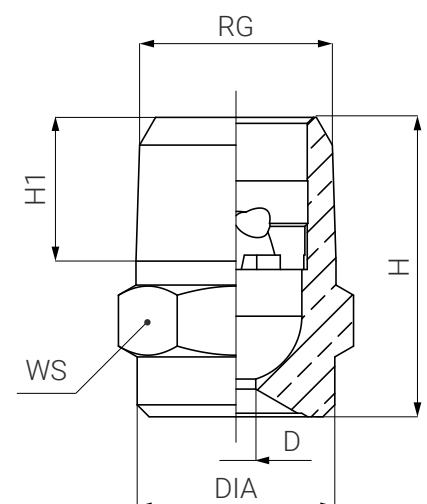


*Full cone jet spray pattern*

## APPLICATION

- Steel
- Chemical processes
- Spray Cooling

	DIMENSIONS mm				
	H	H1	DIA	WS	RG
<b>D1</b>	18	9	10	12	1/8" BSPT 1/8" NPT
<b>D2</b>	22,5	12,5	13,5	14	1/4" BSPT 1/4" NPT
<b>D3</b>	24,5	12	16,5	17	3/8" BSPT 3/8" NPT
<b>D4</b>	33	18	21,5	22	1/2" BSPT 1/2" NPT



STANDARD CAPACITY

1/8"	CODE	D mm	FLOW RATE (lpm) AT DIFFERENT PRESSURE VALUES (bar)						
			1,0	2,0	3,0	4,0	5,0	7,0	10
	1118	1.2	0.66	0.96	1.18	1.4	1.58	2	2.4
	1147	1.4	0.9	1.2	1.47	1.8	2.1	2.75	3.7
	1188	1.8	1.2	1.5	1.88	2.2	2.6	3.4	4
	1212	1.9	1.22	1.7	2.12	2.44	2.7	3.23	3.87
	1235	2	1.43	2.15	2.35	2.7	3.15	3.52	4.1
	1294	2.1	2.3	2.7	2.94	3.4	3.7	4.3	5.2
	1370	2.2	2.1	2.8	3.7	4	4.3	5	5.8
	1470	2.3	2.7	3.8	4.7	5.4	6	7.18	8.6

1/4"	CODE	D mm	FLOW RATE (lpm) AT DIFFERENT PRESSURE VALUES (bar)						
			1,0	2,0	3,0	4,0	5,0	7,0	10
	1147	1.4	0.9	1.2	1.47	1.8	2.1	2.75	3.7
	1188	1.8	1.2	1.5	1.88	2.2	2.6	3.4	4
	1212	1.9	1.22	1.7	2.12	2.44	2.7	3.23	3.87
	1235	2	1.43	2.15	2.35	2.7	3.15	3.52	4.1
	1294	2.1	2.3	2.7	2.94	3.4	3.7	4.3	5.2
	1370	2.2	2.1	2.8	3.7	4	4.3	5	5.8
	1470	2.5	3	3.9	4.7	5.2	5.8	6.8	7.5
	1588	2.8	3.4	5	5.88	6.6	7.2	8.2	9.5
	1659	3.3	3.8	5.4	6.59	7.6	8.5	10	12
	1740	3.5	4.3	6	7.4	8.54	9.55	11.3	13.5
	1940	3.8	5.4	7.7	9.4	10.8	12.1	14.3	17.2

3/8"	CODE	D mm	FLOW RATE (lpm) AT DIFFERENT PRESSURE VALUES (bar)						
			1,0	2,0	3,0	4,0	5,0	7,0	10
	1235	1.8	1.43	2.15	2.35	2.7	3.15	3.52	4.1
	1294	2	2.3	2.7	2.94	3.4	3.7	4.3	5.2
	1370	2.2	2.1	2.8	3.7	4	4.3	5	5.8
	1470	2.4	3	3.9	4.7	5.2	5.8	6.8	7.5
	1588	2.8	3.4	5	5.88	6.6	7.2	8.2	9.5
	1659	3.1	3.8	5.4	6.59	7.6	8.5	10	12
	1740	3.4	4.3	6	7.4	8.54	9.55	11.3	13.5
	1940	3.6	5.4	7.7	9.4	10.8	12.1	14.3	17.2
	2105	3.8	6.1	8.57	10.5	12.1	13.5	16	19.1
	2118	4	6.8	9.6	11.8	13.6	15.2	18	21.5
	2147	4.4	8.5	12	14.7	16.9	18.9	22.4	26.8
	2188	4.6	10.8	15.3	18.8	21.7	24.3	28.7	34.3

1/2"	CODE	D mm	FLOW RATE (lpm) AT DIFFERENT PRESSURE VALUES (bar)						
			1,0	2,0	3,0	4,0	5,0	7,0	10
	1740	3.4	4.3	6	7.4	8.54	9.55	11.3	13.5
	1940	3.6	5.4	7.7	9.4	10.8	12.1	14.3	17.2
	2105	3.8	6.1	8.57	10.5	12.1	13.5	16	19.1
	2118	4	6.8	9.6	11.8	13.6	15.2	18	21.5
	2147	4.4	8.5	12	14.7	16.9	18.9	22.4	26.8
	2188	4.6	10.8	15.3	18.8	21.7	24.3	28.7	34.3
	2235	5	13.5	19.1	23.5	27.1	30.3	35.9	42.9
	2294	5.2	16.9	24	29.4	33.9	37.9	44.9	53.7

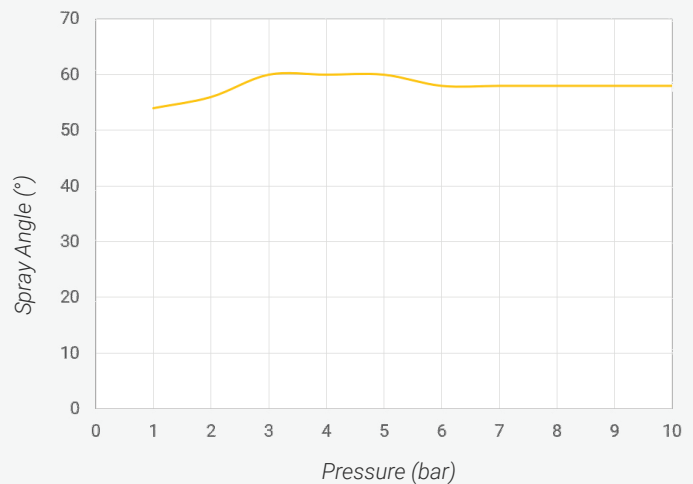
1/8"	CODE	D mm	MINIMUM FREE PASSAGE
D1			D1 mm
	<b>1118</b>	1.2	1.2
	<b>1147</b>	1.4	1.4
	<b>1188</b>	1.8	1.8
	<b>1212</b>	1.9	1.8
	<b>1235</b>	2	1.8
	<b>1294</b>	2.1	2
	<b>1370</b>	2.2	2
	<b>1470</b>	2.3	2

1/4"	CODE	D mm	MINIMUM FREE PASSAGE
D2			D1 mm
	<b>1147</b>	1.4	1.4
	<b>1188</b>	1.8	1.8
	<b>1212</b>	1.9	1.9
	<b>1235</b>	2	2
	<b>1294</b>	2.1	2.1
	<b>1370</b>	2.2	2.2
	<b>1470</b>	2.5	2.5
	<b>1588</b>	2.8	2.8
	<b>1659</b>	3.3	3
	<b>1740</b>	3.5	3.5
	<b>1940</b>	3.8	3.5

3/8"	CODE	D mm	MINIMUM FREE PASSAGE
D3			D1 mm
	<b>1235</b>	1.8	2
	<b>1294</b>	2	2
	<b>1370</b>	2.2	2
	<b>1470</b>	2.4	2.4
	<b>1588</b>	2.8	2.8
	<b>1659</b>	3.1	3
	<b>1740</b>	3.4	3.4
	<b>1940</b>	3.6	3.5
	<b>2105</b>	3.8	3.5
	<b>2118</b>	4	4
	<b>2147</b>	4.4	4
	<b>2188</b>	4.6	4.5

1/2"	CODE	D mm	MINIMUM FREE PASSAGE
D4			D1 mm
	<b>1740</b>	3.4	3.4
	<b>1940</b>	3.6	3.5
	<b>2105</b>	3.8	4
	<b>2118</b>	4	4
	<b>2147</b>	4.4	4.5
	<b>2188</b>	4.6	4.5
	<b>2235</b>	5	5
	<b>2294</b>	5.2	5

**SPRAY ANGLE AT DIFFERENT PRESSURE INPUT VALUES OF Dplus SERIES FULL CONE NOZZLE**  
(D3Q example chart)



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