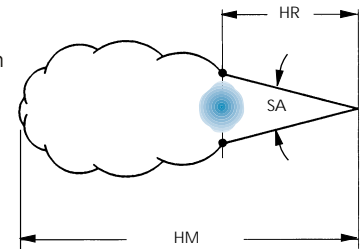


**INTERNAL MIX SET-UPS — FULL CONE PRESSURE**



These set-ups produce a full, rounded spray pattern, with a spray angle between 13 to 22°.

Details are given in the illustration at the right. The maximum spray length is HM. The distance over which the spray remains well-defined is denoted by HR. Beyond this distance (HR), the spray becomes turbulent. The spray angle is denoted by SA.



The entries on the right-hand part of the table below show how HM, HR, and SA vary as a function of selected values of liquid and air pressure (PL and PA) for the various set-ups.

Materials: Nickel-plated brass (T8)  
303 stainless steel (B1)  
316 stainless steel (B3)  
PVC (D1)  
Lucite (E6)

LF = LIQUID FLOW RATE (gph)  
A = AIR FLOW RATE (scfm)  
PL = LIQUID PRESSURE (psi)  
PA = AIR PRESSURE (psi)

SET-UP CODE	AIR PRESSURE (psi)																				
	10			20			30			40			60			PA	PL	SA	HR	HM	
	LF	A		LF	A		LF	A		LF	A		LF	A							
<b>SUB 1520</b>	10	0.7	0.5	14	1.5	0.4	24	1.7	0.6	32	1.9	0.7	50	2.3	1.0	-	-	-	-	-	
	12	0.5	0.7	18	1.2	0.5	28	1.5	0.6	36	1.6	0.8	54	2.1	1.1	12	10	14°	12"	9'	
	14	0.4	0.8	22	1.0	0.6	32	1.1	0.8	40	1.3	0.9	58	1.8	1.2	24	20	14°	13"	10'	
	-	-	-	24	0.9	0.7	36	0.8	1.0	44	1.1	1.1	62	1.6	1.4	36	30	14°	14"	11'	
	Ln XMW 5001	-	-	26	0.7	0.8	38	0.7	1.0	48	0.9	1.2	66	1.3	1.5	44	40	15°	15 1/2"	12 1/2'	
	An XMW 4001	-	-	28	0.6	0.8	40	0.7	1.1	50	0.7	1.3	68	1.2	1.6	62	60	16°	17 1/2"	14 1/2'	
-	-	-	30	0.5	0.9	42	0.6	1.2	52	0.7	1.4	70	1.1	1.7	-	-	-	-	-		
<b>SUB 1670</b>	10	0.7	0.7	18	1.4	0.9	24	2.0	1.0	30	2.4	1.1	40	3.3	1.4	-	-	-	-	-	
	12	0.6	0.8	20	1.3	1.0	28	1.7	1.2	34	2.2	1.3	46	2.9	1.5	12	10	13°	17"	12'	
	14	0.4	0.9	22	1.2	1.1	32	1.5	1.4	38	1.9	1.5	52	2.6	1.8	20	20	14°	18"	13'	
	-	-	-	24	1.1	1.2	34	1.3	1.5	42	1.6	1.7	58	2.6	2.1	34	30	14°	19"	14'	
	Ln XMW 5001	-	-	26	0.9	1.3	36	1.2	1.6	44	1.5	1.8	62	2.1	2.3	42	40	14°	20"	15'	
	An XMW 4002	-	-	-	-	-	38	1.1	1.7	46	1.4	1.9	66	1.9	2.5	58	60	15°	22"	17'	
-	-	-	-	-	-	40	1.0	1.8	48	1.3	2.0	70	1.7	2.7	-	-	-	-	-		
<b>SUB 2142</b>	12	1.3	0.7	22	2.1	1.0	30	2.9	1.3	36	4.3	1.3	48	5.8	1.5	-	-	-	-	-	
	16	1.1	0.9	26	1.8	1.3	34	2.5	1.4	40	3.9	1.4	52	5.3	1.7	22	10	13°	19"	13'	
	20	0.9	1.1	30	1.4	1.5	38	2.1	1.7	44	3.6	1.6	56	4.9	1.7	34	20	14°	20"	14'	
	22	0.8	1.2	34	1.3	1.7	42	1.8	1.9	48	2.8	1.8	60	4.6	1.9	42	30	14°	21"	15'	
	Ln XMW 5002	24	0.8	1.4	38	1.1	1.9	46	1.5	2.0	52	2.5	2.0	64	4.1	2.1	48	40	15°	22"	16'
	An XMW 4002	26	0.8	1.4	40	1.0	2.0	50	1.3	2.2	56	2.2	2.2	68	3.7	2.3	60	60	16°	23 1/2"	17 1/2'
-	28	0.8	1.6	42	0.9	2.1	52	1.2	2.4	60	1.9	2.4	70	3.6	2.4	-	-	-	-	-	
<b>SUC 2376</b>	16	3.4	2.7	28	5.0	3.7	40	6.1	4.7	48	7.8	5.3	65	10.7	6.8	-	-	-	-	-	
	20	2.3	3.2	32	3.7	4.2	44	5.0	5.2	55	6.0	6.1	75	8.7	7.7	24	10	18°	26"	16'	
	22	1.9	3.5	36	2.7	4.7	48	4.0	5.7	65	3.6	7.3	80	7.7	8.3	40	20	20°	30"	20'	
	24	1.6	3.7	40	1.9	5.1	55	2.3	6.5	75	2.0	8.5	85	6.7	8.8	55	30	20°	32"	22'	
	Ln XMW 5003	26	1.3	4.0	44	1.3	5.6	60	1.6	7.1	80	1.4	9.1	90	5.7	9.4	75	40	21°	36"	26'
	An XMW 4003	28	1.0	4.2	48	0.9	6.1	65	1.1	7.8	85	1.0	9.7	95	4.6	10.0	85	60	21°	38"	30'
-	30	0.7	4.5	50	0.8	6.4	70	0.7	8.4	90	0.7	10.3	100	3.6	10.6	-	-	-	-	-	
<b>SUC 2690</b>	12	8.0	2.0	20	13.5	2.6	30	16.4	3.3	38	19.5	3.7	54	25.8	4.7	-	-	-	-	-	
	14	6.7	2.3	22	12.1	2.9	34	13.2	3.7	42	16.5	4.2	60	21.9	5.4	14	10	17°	24"	16'	
	16	5.0	2.7	24	10.3	3.2	38	10.0	4.3	46	13.6	4.7	65	18.6	6.0	26	20	18°	27"	19'	
	18	3.5	3.0	26	8.7	3.5	40	8.8	4.6	50	10.8	5.3	70	15.2	6.7	40	30	20°	30"	22'	
	Ln XMW 5004	-	-	28	7.3	3.8	42	7.7	4.9	52	9.6	5.6	75	12.3	7.8	50	40	20°	31"	23'	
	An XMW 4003	-	-	30	6.0	4.1	44	6.7	5.2	54	8.6	5.9	80	10.0	8.2	70	60	21°	36"	28'	
-	-	-	32	4.7	4.4	46	5.6	5.5	56	7.6	6.1	85	8.1	8.9	-	-	-	-	-		
<b>SUC 3129</b>	14	11.8	3.1	20	27.6	3.1	28	36.5	3.6	32	49.4	3.3	42	70.7	3.2	-	-	-	-	-	
	16	8.6	3.6	22	23.1	3.5	30	32.5	4.0	36	42.2	4.1	46	65.1	3.9	14	10	19°	35"	20'	
	-	-	-	24	18.1	4.0	32	28.8	4.4	40	35.1	4.9	50	59.1	4.6	24	20	20°	39"	23'	
	-	-	-	26	14.5	4.4	34	24.7	4.8	44	28.0	5.7	54	53.1	5.4	34	30	21°	41"	25'	
	Ln XMW 5005	-	-	28	11.4	4.9	36	21.0	5.2	46	24.5	6.1	58	47.5	6.2	44	40	21°	42"	26'	
	An XMW 4004	-	-	-	-	-	38	17.6	5.6	48	21.3	6.5	65	37.9	7.6	54	60	22°	46"	30'	
-	-	-	-	-	-	40	14.5	6.0	50	18.4	6.9	70	30.1	8.6	-	-	-	-	-		