

**DIMENSIONS**

NOZZLE SIZE (BSPT)	Dim. A (mm)	Dim. L (mm)
1 <sup>1</sup> / <sub>4</sub> FS	47.6	89
1 <sup>1</sup> / <sub>2</sub> FS	57.2	108
2FS	69.9	138
2 <sup>1</sup> / <sub>2</sub> FS	92.1	178
3FS	102	197
4FS	127	251

**SPRAY CHARACTERISTICS:**

Full cone spray pattern, with uniform distribution throughout the cone.

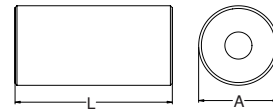
**CONSTRUCTION:**

All models have a female BSPT connection, and consist of a one piece body plus an internal insert. Standard materials are machined 316 stainless steel or cast 316 stainless steel.

**TYPICAL APPLICATIONS:**

- Chemical Processing
- Cooling Sprays
- Foam Breaking
- Heat Exchanger Cooling
- Coke Quenching
- Absorption Stack Spraying
- Gravel Washing

**MACHINED VERSION**



3" and 4" machined from bar.

'FS' FEMALE	PIPE SIZE BSPT	MAXIMUM FREE PASSAGE (mm)	CAPACITY (L/min) AT VARIOUS PRESSURES (bar)													SPRAY ANGLE @		
			0.2 bar	0.3 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar	9 bar	0.5 bar	1.5 bar	5 bar	
1 <sup>1</sup> / <sub>4</sub> FS7.1	1 <sup>1</sup> / <sub>4</sub>	6.6	14.5	17.7	22.9	27.1	32	40	46	56	65	72	79	97	54°	56°	50°	
1 <sup>1</sup> / <sub>4</sub> FS12	1 <sup>1</sup> / <sub>4</sub>	6.6	24.5	30.0	39	46	55	67	77	95	109	122	134	164	72°	76°	70°	
1 <sup>1</sup> / <sub>4</sub> FS14.1	1 <sup>1</sup> / <sub>4</sub>	6.6	28.7	35	45	54	64	79	91	111	129	144	157	193	76°	80°	74°	
1 <sup>1</sup> / <sub>4</sub> FS16.5	1 <sup>1</sup> / <sub>4</sub>	7.7	34	41	53	63	75	92	106	130	150	168	184	226	85°	90°	83°	
1 <sup>1</sup> / <sub>4</sub> FS23.8	1 <sup>1</sup> / <sub>4</sub>	7.9	49	60	77	92	109	134	155	189	219	245	268	328	94°	98°	89°	
1 <sup>1</sup> / <sub>2</sub> FS12.5	1 <sup>1</sup> / <sub>2</sub>	8.0	25.5	31	40	48	57	70	81	99	114	127	140	171	50°	51°	49°	
1 <sup>1</sup> / <sub>2</sub> FS19	1 <sup>1</sup> / <sub>2</sub>	8.4	39	47	61	72	87	106	122	150	173	194	212	260	68°	70°	62°	
1 <sup>1</sup> / <sub>2</sub> FS24	1 <sup>1</sup> / <sub>2</sub>	8.4	49	60	77	92	109	134	155	189	219	245	268	328	82°	88°	70°	
1 <sup>1</sup> / <sub>2</sub> FS36	1 <sup>1</sup> / <sub>2</sub>	9.5	73	90	116	137	164	201	232	284	328	367	402	492	98°	103°	85°	
2FS20	2	11.1	41	50	64	76	91	112	129	158	182	204	223	273	50°	64°	60°	
2FS36	2	11.1	73	90	116	137	164	201	232	284	328	367	402	492	70°	75°	68°	
2FS42	2	11.1	86	105	135	160	191	234	271	332	383	428	469	574	74°	78°	70°	
2FS47	2	11.1	96	117	151	179	214	262	303	371	428	479	525	643	78°	80°	84°	
2FS59	2	11.1	120	147	190	225	269	329	380	466	538	601	659	807	82°	86°	78°	
2FS71	2	11.1	145	177	229	271	324	396	458	560	647	724	793	971	98°	100°	93°	
2 <sup>1</sup> / <sub>2</sub> FS30	2 <sup>1</sup> / <sub>2</sub>	11.1	61	75	97	114	137	167	193	237	273	306	335	410	55°	59°	55°	
2 <sup>1</sup> / <sub>2</sub> FS59	2 <sup>1</sup> / <sub>2</sub>	11.1	120	147	190	225	269	329	380	466	538	601	659	807	75°	80°	72°	
2 <sup>1</sup> / <sub>2</sub> FS71	2 <sup>1</sup> / <sub>2</sub>	13.5	145	177	229	271	324	396	458	560	647	724	793	971	80°	85°	77°	
2 <sup>1</sup> / <sub>2</sub> FS83	2 <sup>1</sup> / <sub>2</sub>	13.5	169	207	267	317	378	463	535	655	757	846	927	1135	80°	82°	76°	
2 <sup>1</sup> / <sub>2</sub> FS95	2 <sup>1</sup> / <sub>2</sub>	13.5	194	237	306	362	433	530	612	750	866	968	1061	1299	86°	90°	82°	
2 <sup>1</sup> / <sub>2</sub> FS108	2 <sup>1</sup> / <sub>2</sub>	17.5	220	270	348	412	492	603	696	853	984	1101	1206	1477	96°	98°	86°	
3FS50	3	17.5	102	125	161	191	228	279	322	395	456	510	558	684	49°	50°	46°	
3FS95	3	17.5	194	237	306	362	433	530	612	750	866	968	1061	1299	81°	84°	76°	
3FS108	3	17.5	220	270	348	412	492	603	696	853	984	1101	1206	1477	86°	89°	81°	
3FS119	3	17.5	243	297	384	454	542	664	767	939	1085	1213	1329	1627	92°	95°	87°	
3FS142	3	17.5	289	354	458	541	647	793	915	1121	1294	1447	1585	1942	102°	105°	93°	
4FS189	4	22.2	385	472	609	721	861	1055	1218	1492	1723	1926	2110	2584	87°	90°	85°	
4FS212	4	22.2	432	529	683	808	966	1183	1366	1674	1932	2161	2367	2899	92°	95°	87°	
4FS238	4	22.2	485	594	767	908	1085	1329	1534	1879	2169	2426	2657	3254	97°	100°	91°	
4FS250	4	22.2	510	624	806	953	1139	1396	1611	1974	2279	2548	2791	3418	102°	105°	95°	