

# Full cone spray nozzles

# S SERIES

## SPRAY CHARACTERISTICS:

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

## CONSTRUCTION:

The nozzle contains a patented insert with larger flow passages than older styles, and is less susceptible to clogging. Standard materials are brass, 303 stainless steel, and 316 stainless steel. Some models are also

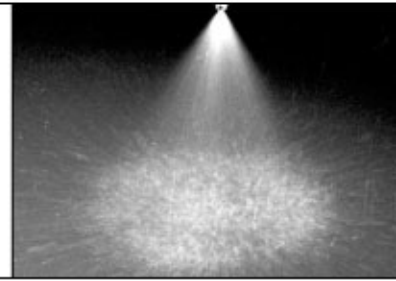
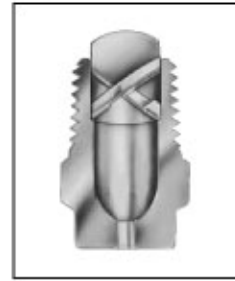
stocked in PVC, CPVC, and polypropylene.

For molded plastic models, please see page 29.

## TYPICAL APPLICATIONS:

- Chemical Processing
- Cooling Sprays
- Foam Breaking
- Continuous Casting

U.S. Patent No. 4,142,682  
Canadian Patent No. 1,050,589

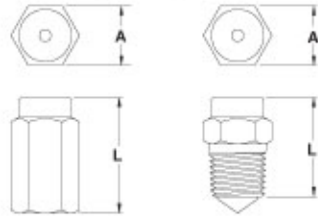


## S SERIES

One piece body + non-removable insert

### DIMENSIONS

NOZZLE SIZE (BSPT)	Dim. A (mm)	Dim. L (mm)
1/8S	11 HEX	21
1/4S	14 HEX	24
3/8S	17 HEX	29
1/2S	22 HEX	33
3/4FS	27 HEX	52
1S	35 HEX	40
1FS	32 HEX	26
1S	42 dia.	68

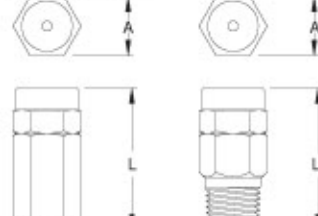


## GS SERIES

Two piece body + removable insert

### DIMENSIONS

NOZZLE SIZE (BSPT)	Dim. A (mm)	Dim. B (mm)
1/8GS	16 HEX	33
1/4GS	18 HEX	34
3/8GS	21 HEX	43
1/2GS	25 HEX	51
3/4FGS	16 HEX	33
1FGS	18 HEX	42
3/4FGS	21 HEX	49
1FGS	25 HEX	53

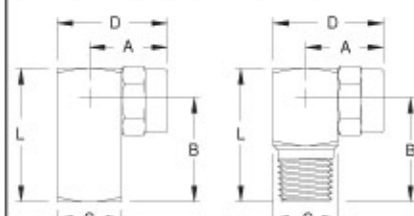


## HGS SERIES

Two piece body + removable insert.  
Sprays at right angle to pipe.

### DIMENSIONS

NOZZLE SIZE (BSPT)	Dim. A (mm)	Dim. B (mm)	Dim. C (mm)	Dim. D (mm)	Dim. L (mm)
1/8HGS	18	18	16 SQ	26	25
1/4HGS	23	25	19 SQ	33	35
3/8HGS	26	27	22 SQ	38	39
1/2HGS	30	35	25 SQ	43	48
3/4FHGS	17	18	16 SQ	23	25
1FHGS	23	25	19 SQ	33	35
3/4FHGS	26	28	22 SQ	38	39
1FHGS	30	35	25 SQ	43	48



FULL CONE SPRAY

S one piece body	GS two piece body		HGS right angle, two piece body		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	8 bar	.5 bar	1.5 bar	5 bar		
1/8S1	1/8FGS1	1/8GS1	1/8FHGS1	1/8HGS1	1/8	0.84	--	--	--	--	0.46	0.56	0.64	0.79	0.91	1.02	1.12	1.29	--	55°	52°		
1/8S1.5	1/8FGS1.5	1/8GS1.5	1/8FHGS1.5	1/8HGS1.5	1/8	1.17	--	--	--	0.57	0.68	0.84	0.97	1.18	1.37	1.53	1.67	1.93	--	65°	57°		
1/8S2	1/8FGS2	1/8GS2	1/8FHGS2	1/8HGS2	1/8	1.30	--	--	0.64	0.76	0.91	1.12	1.29	1.58	1.82	2.04	2.23	2.58	54°	59°	60°		
1/8S3	1/8FGS3	1/8GS3	1/8FHGS3	1/8HGS3	1/8	1.30	--	0.75	0.97	1.14	1.37	1.67	1.93	2.37	2.73	3.06	3.3	3.9	50°	53°	60°		
1/8S3.5	1/8FGS3.5	1/8GS3.5	1/8FHGS3.5	1/8HGS3.5	1/8	1.30	0.71	0.87	1.13	1.33	1.60	1.95	2.26	2.76	3.2	3.6	3.9	4.5	48°	58°	61°		
1/8S5	1/8FGS5	1/8GS5	1/8FHGS5	1/8HGS5	1/8	1.63	1.02	1.25	1.61	1.91	2.28	2.79	3.2	3.9	4.6	5.1	5.6	6.4	60°	75°	70°		
1/8S6	1/8FGS6	1/8GS6	1/8FHGS6	1/8HGS6	1/8	1.63	1.22	1.50	1.93	2.29	2.73	3.3	3.9	4.7	5.5	6.1	6.7	7.7	67°	72°	70°		
1/4S5	1/4FGS5	1/4GS5	1/4FHGS5	1/4HGS5	1/4	2.06	1.02	1.25	1.61	1.91	2.28	2.79	3.2	3.9	4.6	5.1	5.6	6.4	58°	68°	62°		
1/4S6.5	1/4FGS6.5	1/4GS6.5	1/4FHGS6.5	1/4HGS6.5	1/4	2.31	1.32	1.62	2.09	2.48	2.96	3.6	4.2	5.1	5.9	6.6	7.3	8.4	48°	56°	50°		
1/4S7.5	1/4FGS7.5	1/4GS7.5	1/4FHGS7.5	1/4HGS7.5	1/4	2.31	1.53	1.87	2.42	2.86	3.4	4.2	4.8	5.9	6.8	7.6	8.4	9.7	55°	65°	48°		
1/4S8.5	1/4FGS8.5	1/4GS8.5	1/4FHGS8.5	1/4HGS8.5	1/4	2.31	1.73	2.12	2.74	3.2	3.9	4.7	5.5	6.7	7.7	8.7	9.5	11.0	58°	65°	63°		
1/4S10	1/4FGS10	1/4GS10	1/4FHGS10	1/4HGS10	1/4	2.31	2.04	2.50	3.2	3.8	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.9	60°	65°	62°		
1/4S14	1/4FGS14	1/4GS14	1/4FHGS14	1/4HGS14	1/4	2.31	2.85	3.5	4.51	5.3	6.4	7.8	9.0	11.1	12.8	14.3	15.6	18.0	78°	85°	75°		
3/8S9.5	3/8FGS9.5	3/8GS9.5	3/8FHGS9.5	3/8HGS9.5	3/8	2.59	1.94	2.37	3.06	3.6	4.3	5.3	6.1	7.5	8.7	9.7	10.6	12.2	58°	68°	62°		
3/8S10	3/8FGS10	3/8GS10	3/8FHGS10	3/8HGS10	3/8	2.59	2.04	2.50	3.02	3.8	4.6	5.6	6.4	7.9	9.1	10.2	11.2	12.9	55°	65°	50°		
3/8S15	3/8FGS15	3/8GS15	3/8FHGS15	3/8HGS15	3/8	2.59	2.85	3.5	4.8	5.3	6.8	8.4	9.7	11.8	13.7	15.3	16.7	19.3	63°	65°	60°		
3/8S18	3/8FGS18	3/8GS18	3/8FHGS18	3/8HGS18	3/8	2.59	3.7	4.5	5.8	6.9	8.2	10.0	11.6	14.2	16.4	18.3	20.1	23.2	85°	88°	76°		
3/8S20	3/8FGS20	3/8GS20	3/8FHGS20	3/8HGS20	3/8	2.59	4.1	5.0	6.4	7.6	9.1	11.2	12.9	15.8	18.2	20.4	22.3	25.8	76°	82°	75°		
3/8S22	3/8FGS22	3/8GS22	3/8FHGS22	3/8HGS22	3/8	2.90	4.5	5.5	7.1	8.4	10.0	12.3	14.2	17.4	20.1	22.4	24.6	28.4	76°	78°	76°		
1/2S16	1/2FGS16	1/2GS16	1/2FHGS16	1/2HGS16	1/2	3.66	3.3	4.0	5.2	6.1	7.3	8.9	10.3	12.6	14.6	16.3	17.9	20.6	55°	60°	55°		
1/2S25	1/2FGS25	1/2GS25	1/2FHGS25	1/2HGS25	1/2	3.66	5.1	6.2	8.1	9.5	11.4	14.0	16.1	19.7	22.8	25.5	27.9	32	68°	73°	65°		
1/2S32	1/2FGS32	1/2GS32	1/2FHGS32	1/2HGS32	1/2	3.66	6.5	8.0	10.3	12.2	14.6	17.9	20.6	25.3	29.2	33	36	41	80°	90°	75°		
1/2S40	1/2FGS40	1/2GS40	1/2FHGS40	1/2HGS40	1/2	4.11	8.2	10.0	12.9	15.3	18.2	22.3	25.8	32	36	41	45	52	86°	90°	81°		
3/4FS30	3/4S30				3/4	4.11	6.1	7.5	9.7	11.4	13.7	16.7	19.3	23.7	27.3	30.6	33	39	50°	52°	49°		
3/4FS50	3/4S50				3/4	4.95	10.2	12.5	16.1	19.1	22.8	27.9	32	39	46	51	56	64	65°	70°	65°		
3/4FS83	3/4S83				3/4	4.95	16.9	20.7	26.7	32	38	46	53	66	76	85	93	107	93°	97°	86°		
1FS83	1S83				1	5.56	16.9	20.7	26.7	32	38	46	53	66	76	85	93	107	71°	78°	75°		
1FS106	1S106				1	5.56	21.6	26.5	34	40	48	59	68	84	97	108	118	137	86°	89°	80°		
1FS120	1S120				1	5.56	24.5	30.0	39	46	55	67	77	95	109	122	134	155	80°	94°	85°		
1FS142	1S142				1	5.56	28.9	35	46	54	65	79	92	112	129	145	159	183	88°	92°	83°		