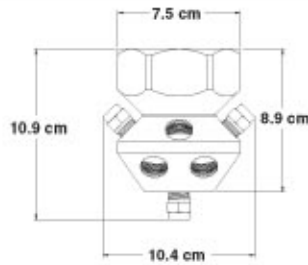


TWA SERIES

Tank washing assembly



TYPICAL APPLICATIONS:

This assembly is suitable for a variety of tank washing applications where the maximum tank diameter is no greater than approximately 3 m. The assembly will pass through a tank opening of at least 10.5 cm in diameter.

SPRAY CHARACTERISTICS:

This unit provides a fixed, non-rotating spray pattern. The assembly body has 13 individual female BSPT nozzle connections which are designed to accept full cone nozzles. For best results, select 'S' series full cone spray nozzles from page 21. A wide variety of flow rates are available. A few standard combinations are listed in the table below.

CONSTRUCTION:

The assembly is available in brass, 303 and 316 stainless steel. A 1 1/2" female BSPT connection attaches to the supply line. Maximum recommended operating pressure is 4 bar.

FULL-CONE SPRAY NOZZLES		CAPACITIES (L/min) AT VARIOUS PRESSURES (bar)						
ONE PIECE BODY REMOVABLE INSERT	TWO PIECE BODY REMOVABLE INSERT	0.7 bar	1.5 bar	2 bar	3 bar	4 bar	5 bar	6 bar
1 1/2 TWA 1/4 S5	1 1/2 TWA 1/4 GS5	24.8	36	42	51	59	66	73
1 1/2 TWA 1/4 S10	1 1/2 TWA 1/4 GS10	50	73	84	103	119	132	145
1 1/2 TWA 3/8 S15	1 1/2 TWA 3/8 GS15	76	112	129	158	182	204	223
1 1/2 TWA 3/8 S22	1 1/2 TWA 3/8 GS22	111	162	187	229	264	296	324

M7S SERIES

Cluster nozzle assembly

PRODUCT DESCRIPTION:

The M7S series cluster nozzle uses an array of seven (7) GS style full-cone spray nozzle caps mounted on a cluster nozzle body to produce a full-cone spray. Multiple full-cone spray nozzle caps produce a relatively small droplet size for large flow rates and are less susceptible to clogging. Nozzle caps are easily removed for cleaning or nozzle change-out.

CONSTRUCTION:

Standard cluster nozzle body and cap materials are brass, 303 stainless steel and 316 stainless steel. Other body and cap materials are available upon request.

U.S. Patent No. 4,142,682

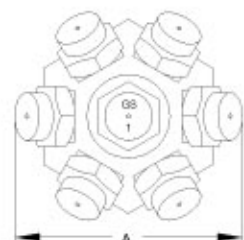
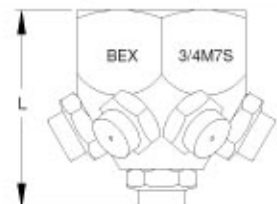
Canadian Patent No. 1,050,589

TYPICAL APPLICATIONS:

- Chemical Processing
- Cooling Sprays
- Stack Gas Scrubbers

DIMENSIONS

NOZZLE SIZE (BSPT)	Dim. A (mm)	Dim. L (mm)
3/4 M7S	61	53
1 M7S	73	64
1 1/2 M7S	104	86



MODEL NUMBER	PIPE SIZE BSPT FEMALE	NOZZLE CAP MODEL #	CAPACITIES (L/min) AT VARIOUS PRESSURES (bar)						
			1.5 bar	3 bar	4 bar	5 bar	6 bar	8 bar	10 bar
3/4 M7S1	3/4	1/8 GS1	3.9	5.5	6.4	7.1	7.8	9.0	10.1
3/4 M7S1.5	3/4	1/8 GS1.5	5.9	8.3	9.6	10.7	11.7	13.5	15.1
3/4 M7S2	3/4	1/8 GS2	7.8	11.1	12.8	14.3	15.6	18.0	20.2
3/4 M7S3	3/4	1/8 GS3	11.7	16.6	19.1	21.4	23.4	27.1	30.3
3/4 M7S3.5	3/4	1/8 GS3.5	13.7	19.3	22.3	25.0	27.4	32	35
3/4 M7S5	3/4	1/8 GS5	19.5	27.6	32	36	39	45	50
3/4 M7S6	3/4	1/8 GS6	27.4	39	45	50	55	63	71
1 M7S6.5	1	1/8 GS6.5	25.4	36	41	46	51	59	66
1 M7S7.5	1	1/8 GS7.5	29	41	48	54	59	68	76
1 M7S10	1	1/8 GS10	39.1	55	64	71	78	90	101
1 1/2 M7S9.5	1 1/2	3/8 GS9.5	37	52	61	68	74	86	96
1 1/2 M7S15	1 1/2	3/8 GS15	59	83	96	107	117	135	151
1 1/2 M7S16	1 1/2	1/2 GS16	63	88	102	114	125	144	161
1 1/2 M7S20	1 1/2	3/8 GS20	78	111	128	143	156	180	202
1 1/2 M7S22	1 1/2	3/8 GS22	86	122	140	157	172	199	222
1 1/2 M7S25	1 1/2	1/2 GS25	98	138	160	178	195	226	252
1 1/2 M7S32	1 1/2	1/2 GS32	125	177	204	228	250	289	323
1 1/2 M7S40	1 1/2	1/2 GS40	156	221	255	285	313	361	404