

Steam shower humidifiers

Conditioned-Steam Showers.

Armstrong Steam Showers are designed to create a stratum of high humidity in close proximity to a fast moving sheet or film. The objective may be to prevent accumulation of troublesome static electricity, or the shower may be used to prevent loss of moisture from the sheet or film.

If the sheet or film is hot, as it very likely may be, it tends to give up its moisture very quickly. The properly sized and installed steam shower, by creating a laminar zone of high humidity adjacent to the sheet or film, prevents this loss to maintain the desired moisture content.

In virtually all applications, however, it is essential that the steam be discharged in a "dry" state – that is, with no water droplets or liquid spray. The unique design of Armstrong Steam Showers assures this.

Separator-control units are identical in design and operation to equivalent humidifier models. The distribution manifolds have been especially modified to operate under slight pressure to meet the specific requirements of steam shower service.

Electrically controlled and pneumatically controlled models are offered in two sizes.

Figure 65-1. Armstrong Steam Shower Manifold



Standard Package.

The complete "package" includes the following:

1. Steam shower with integral operator.
2. Distribution manifold.
3. "Y" type strainer.
4. Armstrong inverted bucket steam trap.
5. Temperature switch to prevent humidifier from operating before cold startup condensate is drained. (Cannot be –incorporated on manually controlled steam showers.)

Note: Steam humidifiers (or other products) should be installed in locations that allow routine inspection and accessibility for maintenance operations. Armstrong recommends that steam humidifiers not be placed in locations where unusual instances of malfunction of the humidifiers or the systems might cause damage to non-repairable, unreplaceable, or priceless property.

Selection and Installation Notes

1. Armstrong Steam Showers are suitable for pressures up to 60 psig. Lower steam pressures (2 to 10 psig) are recommended for normal installations.
2. 91 size units are adequate for most showers up to six feet span. 92 size showers should be used for longer spans or where larger volumes of steam are desired at very low pressures. For information on even larger models, consult factory.
3. Most commonly, the dispersion manifold is installed 6" to 8" from the object of the shower – no more than 12."
4. A pressure-reducing valve should be installed in the steam supply to control the maximum volume of steam to the shower.
5. Dimensions are the same as for corresponding humidifier models.

Table 65-1. Physical Data and Capacities, Steam Shower Bodies and Operators.

Model No.	Electrically Controlled†		Pneumatically Controlled	
	DSA-91-SM*	DSA-92-SM*	AM-91-SM*	AM-92-SM*
Shipping Wt., lbs. (less manifold)	26	33	32	38
Inlet & Strainer Size	1/2"	3/4"	1/2"	3/4"
Drain Connection Size	1"	1"	1"	1"
Drain Trap No.	800	800	800	800
Trap Connection Size	3/4"	3/4"	3/4"	3/4"
Capacities	See Table 16-4, Page 16		See Page 10	

*Full nomenclature includes length of manifold in feet as suffix to the Model No.

†120V/60Hz is standard; other voltages available - consult factory.

Note: For larger sizes and capacities, consult factory.

Table 65-2. Manifold Lengths and Weights, Armstrong Steam Showers

Manifold Model No.	SM-1	SM-1.5	SM-2	SM-3	SM-4	SM-5	SM-6	SM-7	SM-8	SM-9	SM-10	SM-11	SM-12
Length in Inches (L)	12	18	24	36	48	60	72	84	96	108	120	132	144
Shipping	91 size	3	4	5	6	8	10	11	—	—	—	—	—
Wt., lbs.	92 size	6	7	8	11	13	15	17	20	23	25	27	31

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.