

Electrically-operated “on-off” Unit Humidifiers

(physical data, dimensions and capacities)



With Fan.

For direct discharge into atmosphere of area humidified at steam supply pressures from 2 to 60 psi. Solenoid valve turns steam on and off. Integral fan with oilless motor provides rapid, uniform distribution of moisture.

Figure 63-1. FSA humidifiers

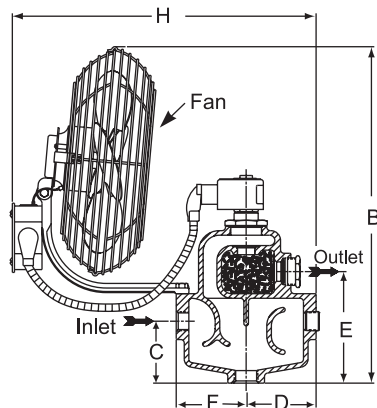


Table 63-1. Dimensions

Model No.	B	C	D	E	F	H
FSA-91	18-9/16"	3-3/8"	3-1/16"	6-1/16"	3-13/16"	15-3/4"
FSA-92	18-9/16"	3-3/8"	3-13/16"	6-1/16"	3-13/16"	15-3/4"
FSA-93	21"	4-5/8"	4-3/4"	9"	4-3/4"	18-1/4"

Without Fan.

For direct discharge into atmosphere of area humidified at steam supply pressures from 2 to 60 psi. Solenoid valve turns steam on and off. Generally used in parallel with unit heaters.

Figure 63-2. VSA humidifiers

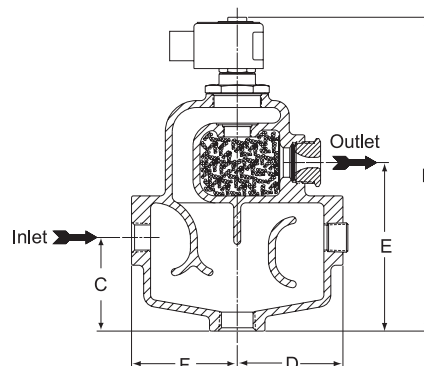


Table 63-2. Dimensions

Model No.	B	C	D	E	F
VSA-91	10-7/8"	3-3/8"	3-1/16"	6-1/16"	3-13/16"
VSA-92	10-7/8"	3-3/8"	3-13/16"	6-1/16"	3-13/16"
VSA-93	14-1/2"	4-5/8"	4-3/4"	9"	4-3/4"

Table 63-3. Physical Data on Armstrong Electrically Operated On-Off Humidifiers

Model Number	FSA-91	VSA-91	FSA-92	VSA-92	FSA-93	VSA-93
*Coil (watts) 120V, 50/60 Hz	10.5	10.5	10.5	10.5	10.5	10.5
*Motor (watts) 120V, 50/60 Hz	6	none	6	none	6	none
Humidistat (amps at 120V)	4.4	4.4	4.4	4.4	4.4	4.4
Shipping Weight (lbs.)	33	26	40	33	68	61
Steam Inlet & Strainer	1/2"	1/2"	3/4"	3/4"	1-1/4"	1-1/4"
Drain Connection	1"	1"	1"	1"	1-1/4"	1-1/4"
Drain Trap No. (3/4" NPT)	800	800	800	800	811	811

*Other voltages available. Consult factory.

Table 63-4. Capacities, Armstrong Electrically Operated On-Off Humidifiers

Continuous discharge capacities in lbs. of steam per hour at steam pressure indicated at the humidifier.	Orifice Size	FSA-91, VSA-91, DSA-91						FSA-92, VSA-92, DSA-92						FSA-93, VSA-93, DSA-93			
		1/16"	3/32"	1/8"	5/32"	3/16"	7/32"	7/32"	1/4"	5/16"	3/8"	7/16"	1/2"	5/16"	3/8"	7/16"	1/2"
		2	4	6	8	10	12	15	20	25	30	35	40	50	60	—	—
Steam Pressure (PSIG)	2	1.3	3.0	5	8	12	16	16	22	33	53	74	88	45	50	77	99
	4	2.0	4.6	8	12	18	25	25	33	51	65	90	100	65	85	108	145
	6	2.6	5.8	10	16	23	32	32	42	65	84	108	112	80	105	129	172
	8	3.0	6.8	12	19	27	37	37	49	77	99	123	133	88	117	146	198
	10	3.4	7.8	14	21	31	42	42	55	87	115	136	150	96	130	169	217
	12	3.8	8.6	15	23	34	47	47	62	97	123	150	166	105	142	189	—
	15	4.4	9.6	18	27	40	53	53	69	108	138	170	—	117	160	213	—
	20	5.6	11.9	23	31	47	62	62	82	127	162	—	—	136	186	246	—
	25	6.5	13.4	25	36	52	70	70	91	144	—	—	—	155	212	286	—
	30	7.7	14.3	28	40	59	78	84	102	159	—	—	—	174	237	—	—
	35	8.4	17.2	30	44	65	—	90	115	172	—	—	—	190	262	—	—
	40	9.2	19.2	33	48	70	—	98	125	—	—	—	—	208	285	—	—
	50	11.0	22.8	37	56	83	—	113	150	—	—	—	—	240	—	—	—
	60	12.3	24.4	44	65	—	—	—	—	—	—	—	—	270	—	—	—

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.



Electrically-operated “on-off” Unit Humidifiers, continued...

(physical data, dimensions and capacities)

Standard Package.

The complete “package” includes the following:

1. Humidifier with solenoid valve.
2. Fan and motor for FSA Models.
3. Standard open contact humidistat.
4. “Y” type strainer.
5. Armstrong inverted bucket trap.
6. Temperature switch to prevent “spitting” during warm-up.

How To Order.

Specify model number, electrical characteristics, steam pressure, and orifice size.

Suggested Specification.

Steam humidifier for electric control: Humidifier shall be of the steam separator type with full separation ahead of the control valve and with internal drying chamber and steam jacketed outlet to assure discharge of dry steam only.

- A. Humidifier shall receive steam at supply pressure.
- B. Separating chamber shall be drained by an inverted bucket steam trap.
- C. An integral stainless steel steam jacketed solenoid valve shall control flow of steam at supply pressure to the drying chamber. The drying chamber shall be filled with stainless steel silencing material. Vapor shall be discharged from the drying chamber through the steam-jacketed outlet at atmospheric pressure to provide relative humidity at the specified level.
- D. A temperature switch shall be employed to prevent humidifier from operating before cold start-up condensate is drained.