Armstrong Humidifiers for air handling systems may be installed in fan housings, plenums or ducts.

Normal manifold installation is with the manifold extending horizontally. When required, the manifold may extend vertically upward. It must not extend vertically downward.

Horizontal manifolds should be perfectly level with the discharge holes pointed upstream against the air flow. Note: If manifold is insulated, discharge holes must point downstream to prevent condensation on metal insulation cover. Manifolds over 1 foot in length should be supported.

Steam supply and condensate drain piping should be made in accordance with good piping practice. Trap discharge must be connected to a return line with pressure well below supply pressure to the humidifier. Please see Basic Application Principles in the Humidification Engineering section beginning on Page 24 of this catalog.

Warning: 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.

Primary Methods of Installation

Figure 60-1. Method Number 1

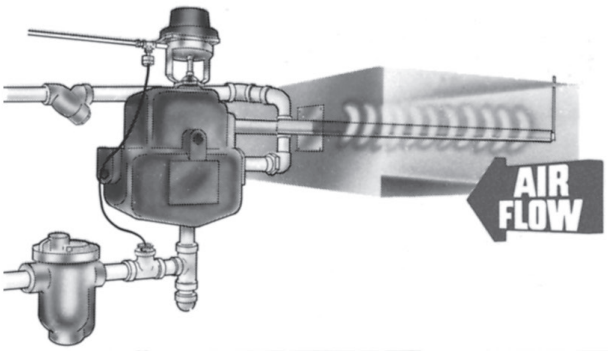

Figure 60-2. Method Number 2

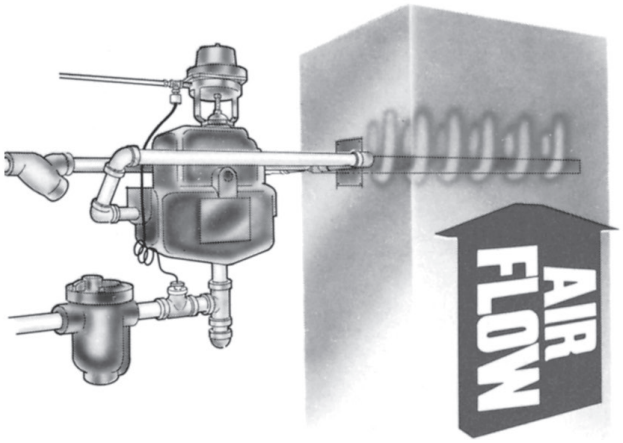

Figure 60-3. Method Number 3

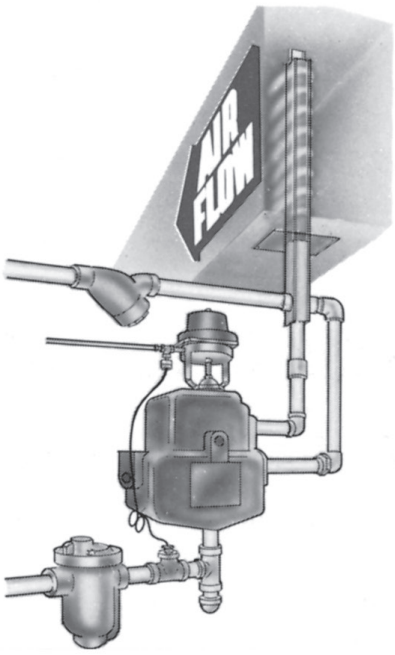

Figure 61-1. Steam Distribution Manifold Data

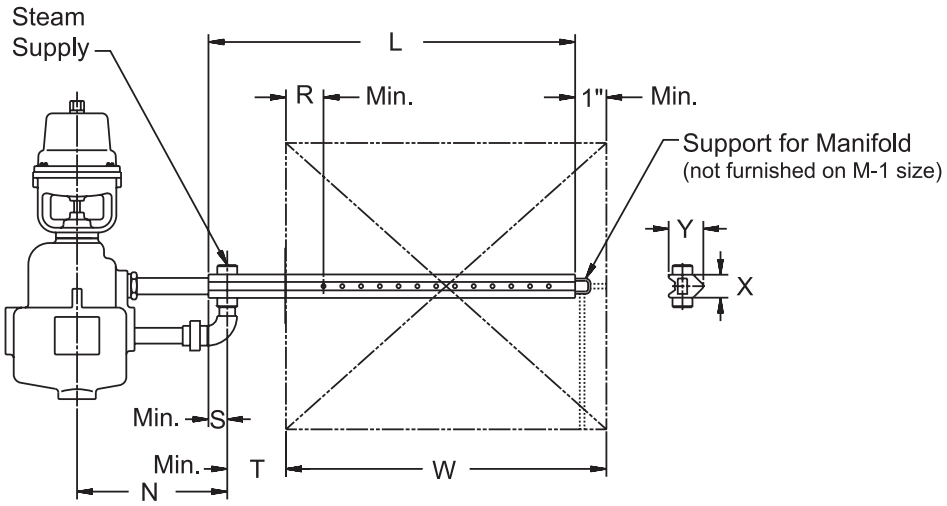

Table 61-1. Cross-Section Dimensions								
Model No.	**"N"**	**"R"**	**"S"**	**"T"**	**"X"**	**"Y"**	**"Z"**	**Steam Supply**
91 and 1100	5-11/16"	2"	1"	1"	1-1/4"	1-7/8"	1-13/16	1/2" NPT
92 and 1200	8-9/16"	2"	1"	1"	1-3/4"	2-5/8"	2-1/16	3/4" NPT
93 and 1300	9-1/16"	2"	1-5/8"	1-5/8"	2-1/8"	3-1/8"	—	1-1/4" NPT
94 and 1400	13-1/2"	2"	1-5/8"	1-5/8"	3-1/4"	4-1/4"	—	2" NPT

Note: For Model 90, see Page 69.

Table 61-2. Manifold Lengths and Duct Widths with which they may be used														
Manifold Model No.		**M-1**	**M-1.5**	**M-2**	**M-3**	**M-4**	**M-5**	**M-6**	**M-7**	**M-8**	**M-9**	**M-10**	**M-11**	**M-12**
L (Length)		12"	18"	24"	36"	48"	60"	72"	84"	96"	108"	120"	132"	144"
W-Duct Width	(Min.)	8"	15"	21"	31"	43"	53"	65"	77"	89"	101"	113"	125"	137"
	(Max.)	14"	20"	30"	42"	52"	64"	76"	88"	100"	112"	124"	136"	148"
Shipping Weight, lbs. Approx.	91 and 1100 Size	3	4	5	6	8	10	12	14	15	17	19	21	23
	92 and 1200 Sizes	4	5	6	9	11	13	16	18	21	22	25	28	30
	93 and 1300 Sizes	6	8	10	13	17	21	24	29	32	37	41	43	46
	94 and 1400 Sizes	Consult Factory				24	30	34	40	45	51	55	60	64

Note: Insulated manifolds are available. Consult factory.
For Model 90 manifold lengths, see Page 69.

Table 61-3. Recommended Number of Manifolds for Various Duct Heights	
Duct height at humidifier location	**No. of manifolds to be installed for one or more humidifiers**
37" to 58"	2
59" to 80"	3
81" to 100"	4
101" & over	5

Note: If you have specific vapor trail considerations, please contact the Armstrong HVAC Application Engineering Department.

Table 61-4. Multiple Manifold Pipe Sizes and Adapter Numbers		
Humidifier Size	**Manifold Pipe Adapter No.**	**Pipe Connection Size**
91	A-4967-B	1/2"
92	A-4967	3/4"
93	A-4967-L	1"*
94	A-5002	2"
1100	A-4967-S	1/2"
1200	A-4967-P	3/4"
1300	A-4967-R	1"*
1400	A-5002-C	2"

*Manifold tube is 1". Jacket connections are 1-1/4".