

### Single Tube Humidifier Selection

Single injection tube humidifiers from PURE Humidifier Co. are factory piped and assembled (after piping at the factory, units over four feet (10.2 cm) in length are disassembled at the unions for ease of shipping).

To properly select a single tube humidifier:

1. Select the correct model from Table 1 by referencing the steam supply pressure and humidification load required in lbs/hr.
2. Add the required valve actuator prefix and injection tube insertion length suffix to the model number (reference "Model Nomenclature")

*Example* Total humidification load = 76lbs/hr @ 10 psig  
 Number of injection tubes required = 1  
 Duct width = 5 ft (12.7 cm); Pneumatic valve required

From Table 1 you will see that a Model 50-10 is required. Adding the proper prefix and suffix;

The correct model number would be: **P50-10-5'-1**

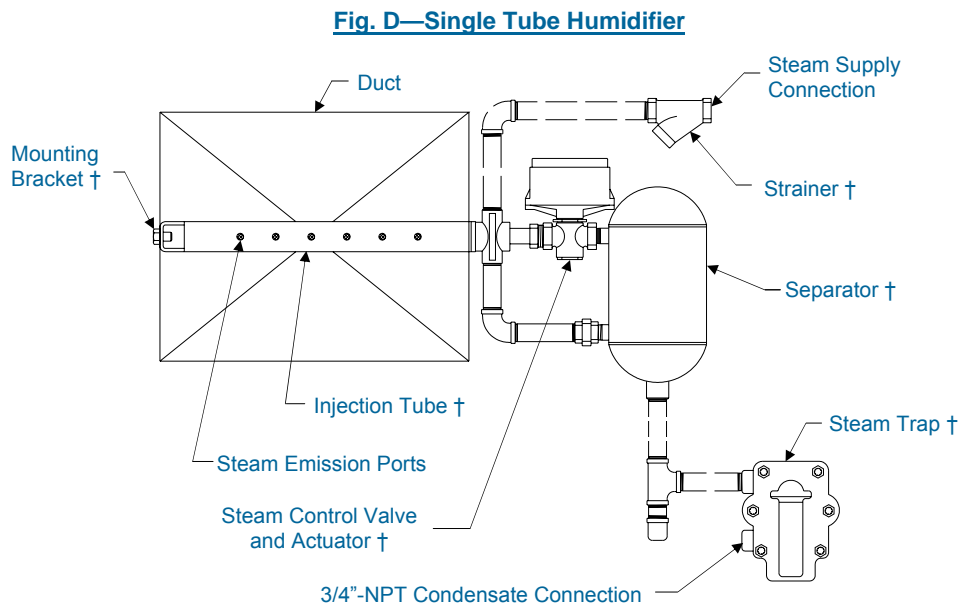
**Example:**

**P50 - 10 - 2' - 1**

- Quantity of Injection Tubes
- Tube Length (in feet)
- Tube Model Number
- Separator Model Number
- Type of Valve Control;  
 P = Pneumatic  
 M = Electric Modulating  
 E = Electric On-Off

**NOTES:**

1. All dashed line piping is by others.
2. † = PURE Humidifier Co..
3. Reference page SI-4 for Single Tube model dimensions and weights.



**Table 1 Single Injection Tube Humidifier Stream Capacity in pounds per hour (lbs/hr)**

Model Number	Valve Cv (Size-NPT)	Steam Pressure to Humidifier Supply Connection in psig																						
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40	45	50	55	60
<b>50-10</b>	.10 (1/2")	1.6	1.9	2.3	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.3	4.4	5.1	5.7	6.3	6.8	7.3	7.7	8.1	8.5	8.9
	.22 (1/2")	3.5	4.2	5.0	5.6	6.5	6.6	7.1	7.6	8	8	9	9	10	10	11	13	14	15	16	17	18	19	20
	.40 (1/2")	6.4	7.6	9.1	10	11	12	13	14	15	15	16	16	17	18	20	23	25	27	29	31	33	34	36
	.75 (1/2")	12	14	17	19	21	23	24	26	27	28	30	31	32	33	38	43	47	50	54	57	60	63	66
	.95 (1/2")	15	18	21	24	27	29	31	33	34	36	38	39	40	42	48	54	59	64	68	72	76	80	84
	1.30 (1/2")	21	24	29	33	36	39	42	44	47	49	51	53	55	57	66	74	80	87	93	99	104	109	114
	1.75 (1/2")	28	33	40	44	49	52	56	60	63	66	69	72	74	76	88	99	107	116	124	132	139	146	153
	2.20 (1/2")	35	41	50	55	61	66	71	75	79	82	86	90	93	95	111	123	134	146	156	165	174	183	192
	2.80 (1/2")	45	53	64	70	78	84	90	96	100	104	109	114	118	121	141	157	171	186	199	210	221	233	244
3.25 (1/2")	52	61	73	82	90	96	104	110	116	121	127	132	137	140	163	181	198	214	229	244	257	270	282	
4.40 (1/2")	70	83	98	110	121	130	141	149	157	163	172	178	185	190	221	244	266	290	310	328	345	363	381	
<b>60-20</b>	5.50 (3/4")	85	104	123	138	150	161	176	186	196	204	213	222	231	236	275	305	333	360	385	408	430	451	471
	6.20 (3/4")	96	117	138	155	169	182	198	210	220	230	240	250	259	265	310	343	372	403	434	459	485	508	529
	7.50 (3/4")	116	142	166	186	204	220	238	253	265	277	289	302	312	320	373	412	450	487	525	555	585	614	640
<b>70-20</b>	8.20 (1")	123	155	180	204	223	240	261	275	290	303	313	328	341	349	407	443	488	529	570	603	635	668	703
	10.0 (1")	150	189	220	248	272	293	317	335	354	370	380	400	414	423	497	540	595	645	695	735	770	810	850
	12.0 (1")	180	228	264	296	326	351	378	402	422	441	456	465	492	505	595	648	714	774	828	876	Δ	Δ	Δ
<b>80-30</b>	20.0 (1-1/4")	300	375	440	494	540	582	630	666	702	736	750	772	814	834	990	1060	1180	1280	1376	1460	Δ	Δ	Δ
	28.0 (1-1/2")	420	511	612	686	756	812	873	927	980	1024	1044	1075	1128	1165	1383	1484	1638	1778	1912	2044	Δ	Δ	Δ