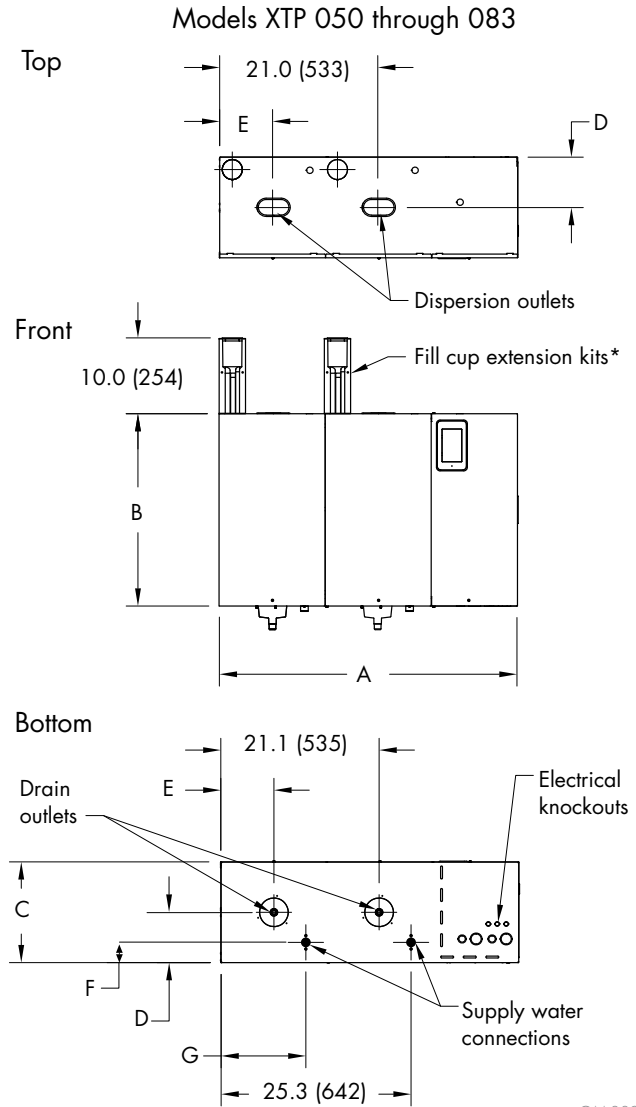
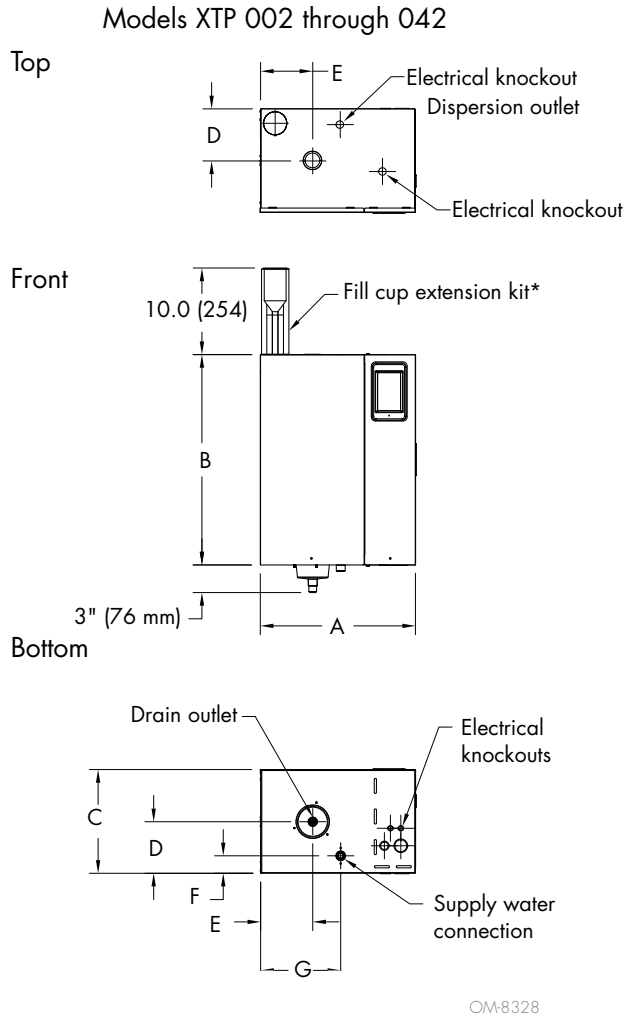




# XT series humidifier dimensions

See dimension by Model number in Table 2-1

**FIGURE 1-1: XT SERIES HUMIDIFIER DIMENSIONAL DRAWINGS**



**Notes:**

- \* Fill cup extension (Figure 1-1) is required for the following:
  - All XT Series humidifiers using Ultra-sorb or Rapid-sorb
  - When developed length of steam tubing is more than 20' (6 m) and duct static pressure exceeds 2" wc (498 Pa)
- Labeled dimensions: inches (millimeters).
- See mounting dimensions in Figure 3-1.
- See Figure 7-1 and Table 7-1 for units mounted in an outdoor enclosure.



# XT series humidifier dimensions

See dimensional drawings in Figure 1-1

**Table 2-1:**  
XT Series humidifier dimensions by model number

Dimension	Description	Model XTP							
		002, 003, 006		010, 017		025, 033, 042		050, 067, 083	
		inches	mm	inches	mm	inches	mm	inches	mm
A	Cabinet width	14.6	371	17.8	452	19.9	505	39.7	1008
B	Cabinet height	20.6	523	24.1	612	25.6	650	25.6	650
C	Cabinet depth	8.7	221	11.9	302	13.4	340	13.4	340
D	Cabinet back edge to steam/drain outlet centers	4.5	114	5.9	150	6.7	170	6.7	170
E	Cabinet left edge to steam/drain outlet centers	4.5	114	6.0	152	7.1	180	7.1	180
F	Cabinet back edge to to water fill connection center	1.5	38	2.0	51	2.7	69	2.7	69
G	Cabinet left edge to fill connection center	6.7	170	9.2	234	11.4	290	11.4	290

Refer to Figure 7-1 and Table 7-1 for units mounted in an outdoor enclosure.

**Table 2-2:**  
XT Series humidifier weights by model number

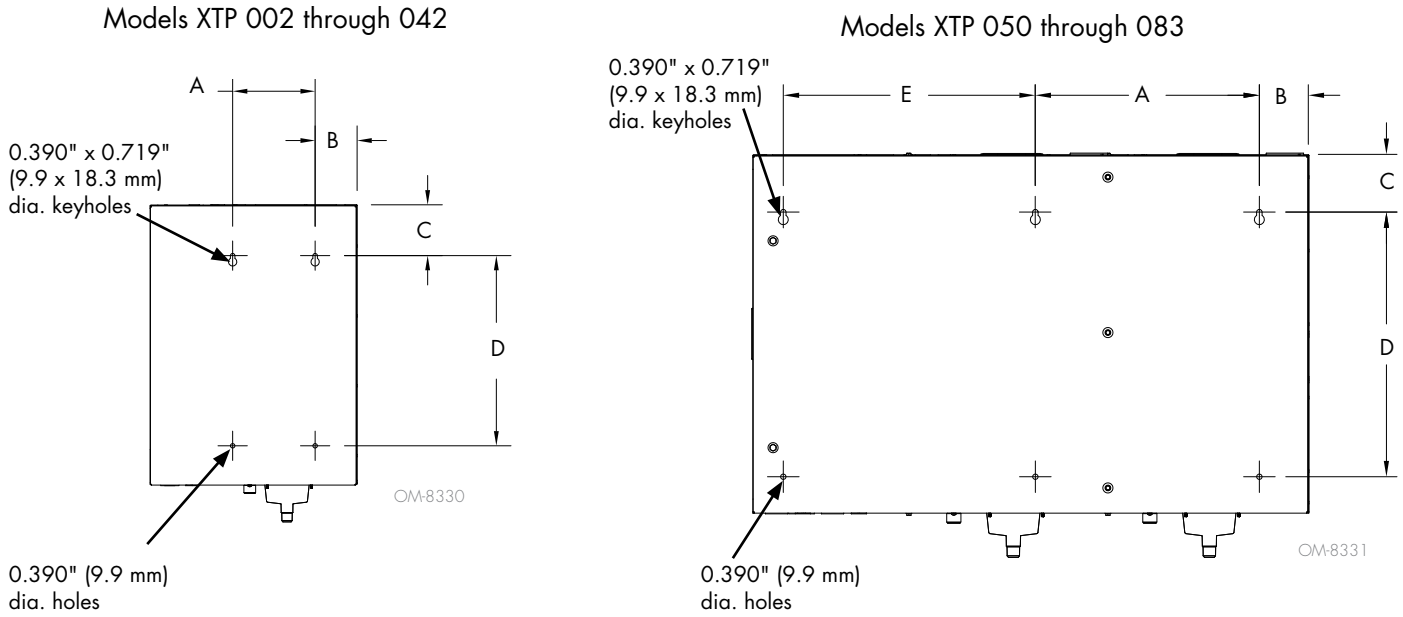
	Model XTP									
	002, 003		006		010, 017		025, 033, 042		050, 067, 083	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
Shipping weight	37	17	37	17	50	23	64	29	139	63
Maximum operating weight	38	17	46	21	79	36	115	52	219	99

Refer to Table 9-1 for units mounted in an outdoor enclosure.



# XT series humidifier mounting dimensions

**FIGURE 3-1: XT SERIES HUMIDIFIER MOUNTING KEYHOLE LOCATIONS**



**Table 3-1:**  
XT Series humidifier mounting keyhole dimensions

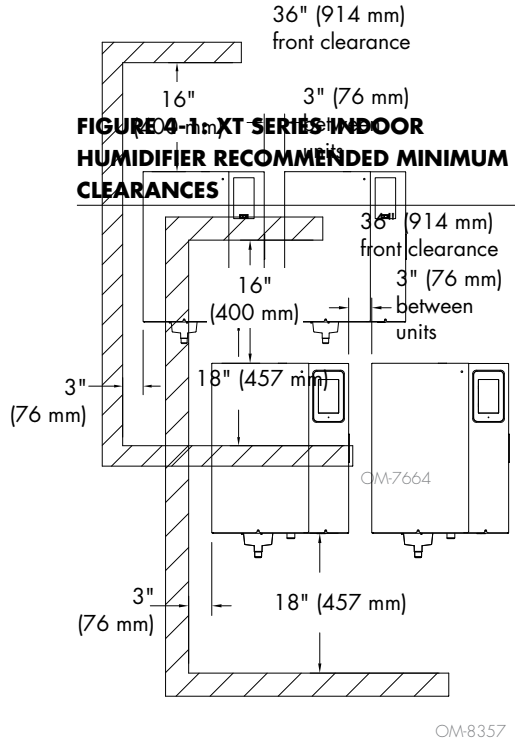
Dimension	Model XTP							
	002, 003, 006		010, 017		025, 033, 042		050, 067, 083	
	inches	mm	inches	mm	inches	mm	inches	mm
A	3.9	100	7.0	178	7.5	190	16.0	406
B	3.0	75	3.4	86	3.4	86	3.5	90
C	3.2	81	3.6	91	4.1	104	4.1	104
D	14.0	355	16.3	414	18.9	480	18.9	480
E	—	—	—	—	—	—	18.0	457

Refer to Figure 8-2 for units mounted in an outdoor enclosure.

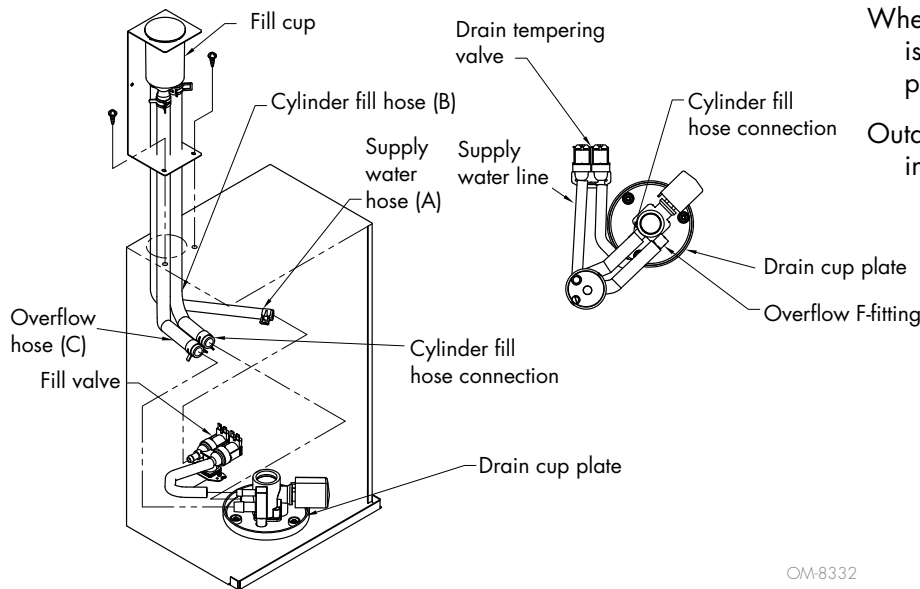


# XT series humidifier clearances and fill cup extension kit

**FIGURE 4-1: XT SERIES INDOOR HUMIDIFIER RECOMMENDED MINIMUM CLEARANCES**



**FIGURE 4-2: FILL CUP EXTENSION KIT**



A fill cup extension (Figure 4-2) is required for the following:

All XT Series humidifiers using Ultra-sorb or Rapid-sorb

When developed length of steam tubing is more than 20' (6 m) and duct static pressure exceeds 2" wc (498 Pa)

Outdoor enclosure units include an integral fill cup extension kit.



# Capacities, line currents, and fusing

**Table 5-1:**  
Line currents and recommended fusing for XT Series humidifiers<sup>(1)</sup>

Model	Nominal steam capacity		kW	Phase	Volts	Maximum line current (amps)	Recommended fusing (amps)
	lbs/hr	kg/h					
002	5	2	1.8	1	120	17.5	25
					208	10.1	15
					230	9.2	15
					240	8.8	15
003	10	5	3.5	1	208	20.2	25
					230	18.3	25
					240	17.5	25
					277	15.2	20
					380	11.1	15
					400	10.5	15
					480	8.8	15
				3	600	7.0	10
					208	11.7	15
					240	10.1	15
					380	6.4	10
					400	6.1	10
					480	5.1	10
					600	4.1	10
006	20	9	7.0	1	208	40.5	50
					230	36.6	45
					240	35.1	45
					277	30.4	40
					380	22.2	30
					400	21.1	30
					480	17.5	25
				3	600	14.0	20
					208	23.4	30
					240	20.3	25
					380	12.8	20
					400	12.2	15
					480	10.1	15
					600	8.1	15
010	30	14	10.5	3	208	35.1	45
					240	30.4	40
					380	19.2	25
					400	18.3	25
					480	15.2	20
					600	12.2	20

For units with an outdoor enclosure:  
 - Add 5 amps to "Maximum Line Current" to accommodate enclosure heater  
 - Adjust fusing size accordingly



# Capacities, line currents, and fusing

**Table 6-1:**  
Line currents and recommended fusing for XT Series humidifiers<sup>(1)</sup>

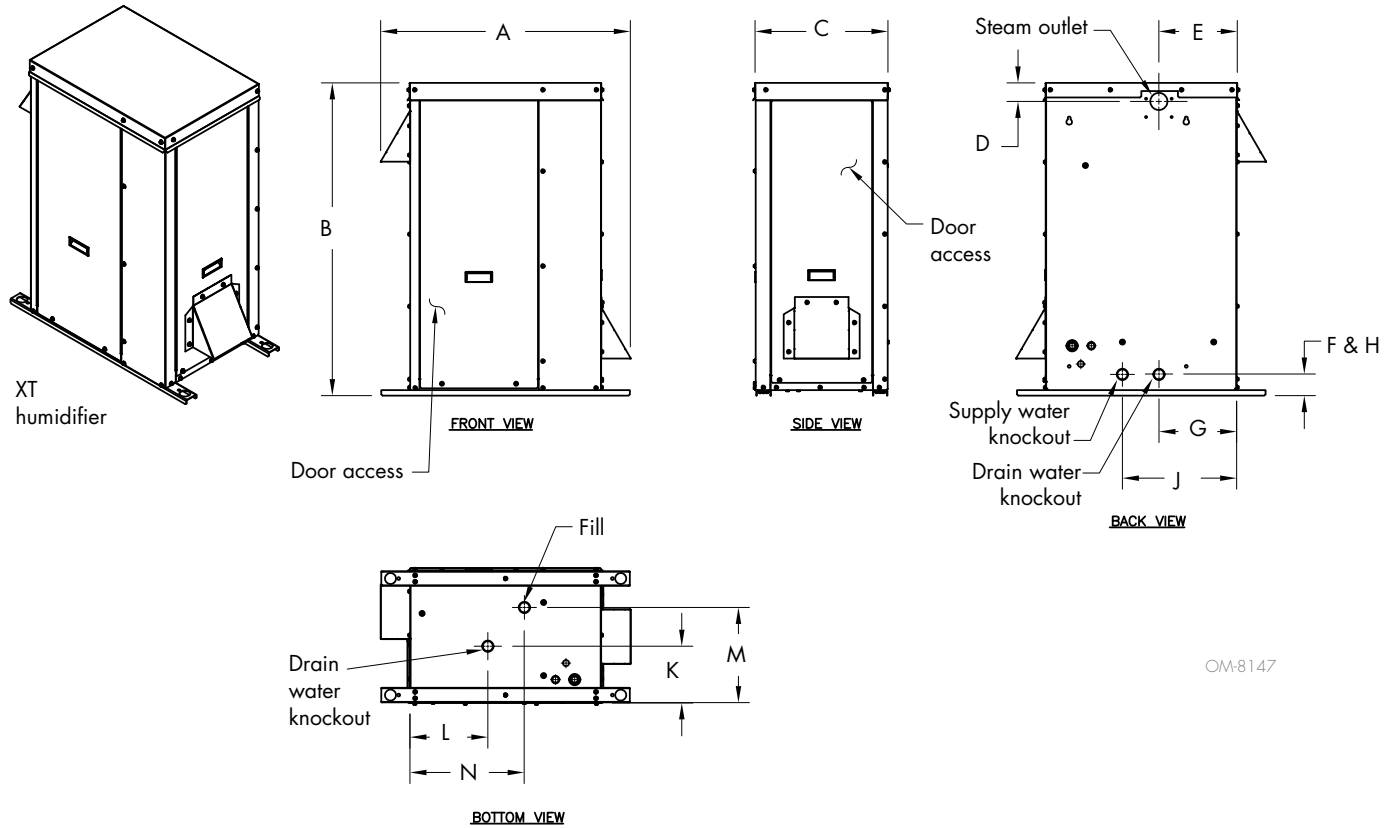
Model	Nominal steam capacity		kW	Phase	Volts	Maximum line current (amps)	Recommended fusing (amps)
	lbs/hr	kg/h					
017	50	22	17.5	3	208	58.5	70
					240	50.7	65
					380	32.0	40
					400	30.4	40
					480	25.4	35
025	75	34	26.3	3	600	20.3	25
					380	48.0	60
					400	45.6	60
					480	38.0	50
					600	30.4	40
033	100	45	35.1	3	380	64.0	80
					400	60.8	75
					480	50.7	65
					600	40.6	50
042	125	57	43.9	3	380	80.1	100
					400	76.1	100
					480	63.4	80
					600	50.7	65
050*	150	68	52.6	3	380	96.0	125
					400	91.2	110
					480	76.0	100
					600	60.8	80
050**	150	68	52.6	3	380	2 x 48.0	2 x 60
					400	2 x 45.6	2 x 60
					480	2 x 38.0	2 x 50
					600	2 x 30.4	2 x 40
067*	200	91	70.2	3	380	128.1	150
					400	121.7	150
					480	101.4	125
					600	81.2	100
067**	200	91	70.2	3	380	2 x 64.0	2 x 80
					400	2 x 60.8	2 x 80
					480	2 x 50.7	2 x 70
					600	2 x 40.6	2 x 50
083*	250	113	87.7	3	380	160.1	200
					400	152.1	200
					480	126.7	150
					600	101.4	125
083**	250	113	87.7	3	380	2 x 80.1	2 x 100
					400	2 x 76.1	2 x 100
					480	2 x 63.4	2 x 80
					600	2 x 50.7	2 x 65

\* Dual canister unit with single-point power connection  
 \*\* Dual canister unit with dual-point power connection. kW listed is total for the unit.  
 For units with an outdoor enclosure:  
 - Add 5 amps to "Maximum Line Current" to accommodate enclosure heater  
 - Adjust fusing size accordingly



# Outdoor enclosure: Dimensions

**FIGURE 7-1: OUTDOOR ENCLOSURE DIMENSIONS**



OM-8147

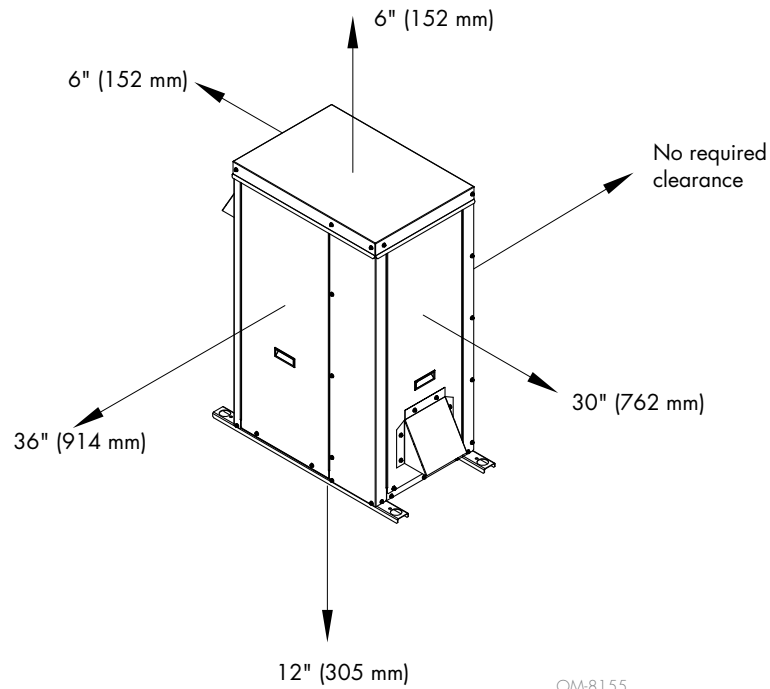
**Table 7-1:  
Outdoor enclosure dimensions**

	Description	002 through 042	
		inches	mm
A	Enclosure width (including lift brackets)	34.2	869
B	Enclosure height (including lift brackets)	42.8	1087
C	Enclosure depth	18.5	470
D	Enclosure top to steam outlet center	2.5	64
E	Enclosure left wall to steam outlet center	10.6	269
F	Enclosure bottom edge to drain water knockout center (back wall) (including lift brackets)	2.9	74
G	Enclosure left wall to drain water knockout center (back wall)	10.6	269
H	Enclosure bottom edge to supply water knockout center (back wall) (including lift brackets)	2.9	74
J	Enclosure left wall to supply water knockout center (back wall)	15.6	396
K	Enclosure back wall to drain water knockout center (bottom)	7.7	196
L	Enclosure left wall to drain water knockout center (bottom)	10.6	269
M	Enclosure back wall to supply water knockout center (bottom)	11.0	279
N	Enclosure left wall to supply water knockout center (bottom)	15.6	396

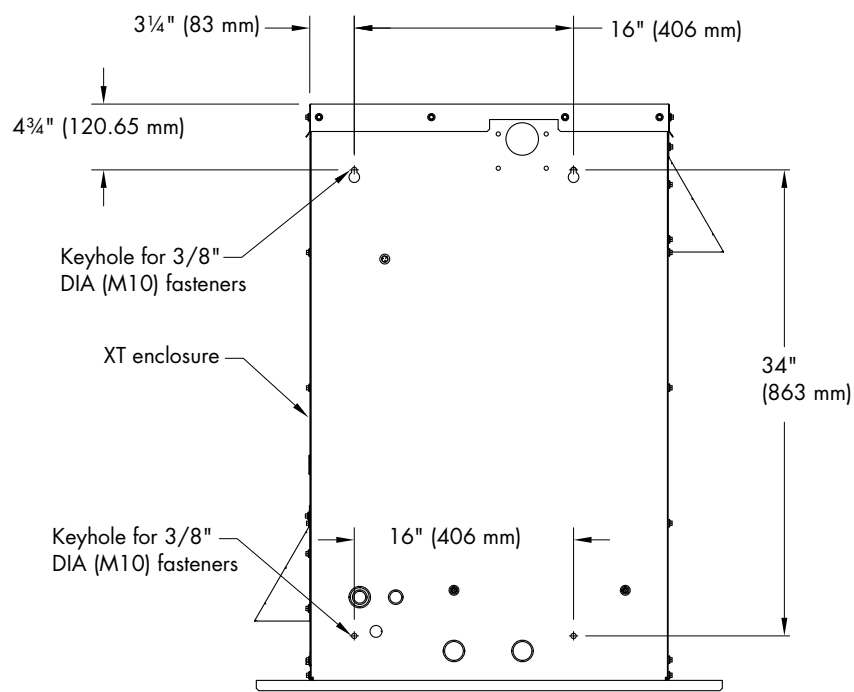


# Outdoor enclosure: Clearances and mounting dimensions

**FIGURE 8-1: OUTDOOR ENCLOSURE CLEARANCES**



**FIGURE 8-2: OUTDOOR ENCLOSURE**



# Outdoor enclosure: XT outdoor enclosure voltage and weights

**Table 9-1: XT Outdoor Voltages and Weights**

Model	Phase	Voltage	Weight Configuration					
			Dry		Shipping		Operating	
			(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
XTPO02A1	1	120	145.0	65.9	209.0	95.0	150.4	68.4
XTPO02B1	1	208	158.0	71.8	222.0	100.9	163.4	74.3
XTPO02D1		230	145.0	65.9	209.0	95.0	150.4	68.4
XTPO02E1		240	158.0	71.8	222.0	100.9	163.4	74.3
XTPO03B1		1	208	158.0	71.8	222.0	100.9	163.4
XTPO03D1	230		145.0	65.9	209.0	95.0	150.4	68.4
XTPO03E1	240		158.0	71.8	222.0	100.9	163.4	74.3
XTPO03F1	277		158.0	71.8	222.0	100.9	163.4	74.3
XTPO03H1	400		145.0	65.9	209.0	95.0	150.4	68.4
XTPO03L1	480		158.0	71.8	222.0	100.9	163.4	74.3
XTPO03P1	600		157.6	71.6	221.6	100.7	163.0	74.1
XTPO03B3	3		208	158.0	71.8	222.0	100.9	163.4
XTPO03E3		240	158.0	71.8	222.0	100.9	163.4	74.3
XTPO03H3		400	145.0	65.9	209.0	95.0	150.4	68.4
XTPO03L3		480	158.0	71.8	222.0	100.9	163.4	74.3
XTPO03P3		600	157.6	71.6	221.6	100.7	163.0	74.1
XTPO06B1	1	208	158.7	72.1	222.7	101.2	171.2	77.8
XTPO06D1		230	145.7	66.2	209.7	95.3	158.2	71.9
XTPO06E1		240	158.7	72.1	222.7	101.2	171.2	77.8
XTPO06F1		277	158.7	72.1	222.7	101.2	171.2	77.8
XTPO06H1		400	145.7	66.2	209.7	95.3	158.2	71.9
XTPO06L1		480	158.7	72.1	222.7	101.2	171.2	77.8
XTPO06P1		600	158.3	72.0	222.3	101.0	170.8	77.6
XTPO06B3		3	208	158.7	72.1	222.7	101.2	171.2
XTPO06E3	240		158.7	72.1	222.7	101.2	171.2	77.8
XTPO06H3	400		145.7	66.2	209.7	95.3	158.2	71.9
XTPO06L3	480		158.7	72.1	222.7	101.2	171.2	77.8
XTPO06P3	600		158.3	72.0	222.3	101.0	170.8	77.6
XTPO10B3	3	208	160.0	72.7	224.0	101.8	187.5	85.2
XTPO10E3		240	160.0	72.7	224.0	101.8	187.5	85.2
XTPO10H3		400	147.0	66.8	211.0	95.9	174.5	79.3
XTPO10L3		480	160.0	72.7	224.0	101.8	187.5	85.2
XTPO10P3		600	159.6	72.5	223.6	101.6	187.1	85.1
XTPO17B3	3	208	160.0	72.7	224.0	101.8	187.5	85.2
XTPO17E3		240	160.0	72.7	224.0	101.8	187.5	85.2
XTPO17H3		400	147.0	66.8	211.0	95.9	174.5	79.3
XTPO17L3		480	160.0	72.7	224.0	101.8	187.5	85.2
XTPO17P3		600	159.6	72.5	223.6	101.6	187.1	85.1
XTPO25H3	3	400	149.8	68.1	213.8	97.2	197.8	89.9
XTPO25L3		480	162.8	74.0	226.8	103.1	210.8	95.8
XTPO25P3		600	162.4	73.8	226.4	102.9	210.4	95.6
XTPO33H3	3	400	152.2	69.2	216.2	98.3	200.2	91.0
XTPO33L3		480	165.2	75.1	229.2	104.2	213.2	96.9
XTPO33P3		600	164.8	74.9	228.8	104.0	212.8	96.7
XTPO42H3	3	400	152.2	69.2	216.2	98.3	200.2	91.0
XTPO42L3		480	165.2	75.1	229.2	104.2	213.2	96.9
XTPO42P3		600	164.8	74.9	228.8	104.0	212.8	96.7

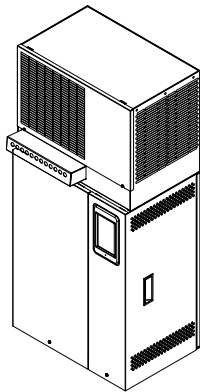


# XT steam blower

**FIGURE 10-1: TOP- AND REMOTE-MOUNTED XT STEAM BLOWER**

Mounted on top of humidifier

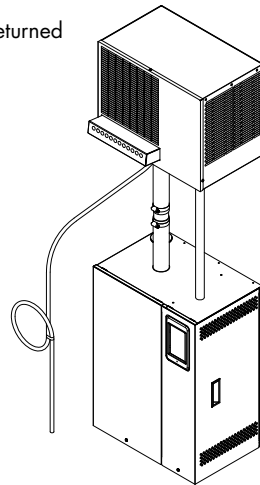
Condensate returned to steam humidifier's overflow hose



OM-8352

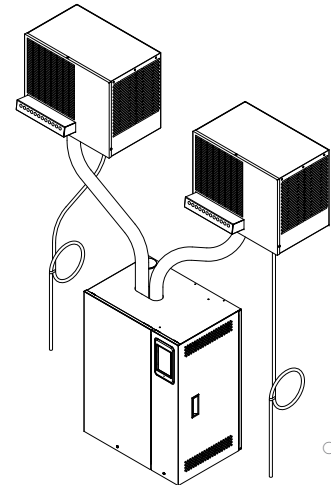
Mounted remotely from humidifier

Condensate returned to open drain



OM-8353

One XT Series humidifier with two XT steam blowers



OM-8354

### XT steam blowers

XT steam blowers, designed to disperse steam directly into large open spaces, are particularly useful in finished spaces and rooms where there are no air-handling ducts.

There are two XT steam blower models:

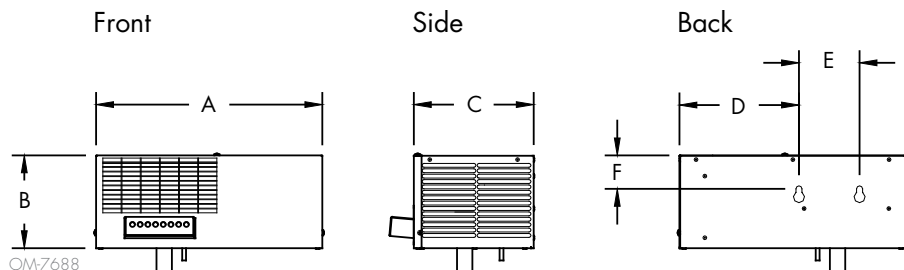
- SDU-006, for capacities up to 20 lbs/hr (9.1 kg/h), can be directly mounted on Models XTP 002 through 006.
- SDU-017, for capacities up to 50 lbs/hr (22.7 kg/h), can be directly mounted on Models XTP 010 and 017.
- XT Series humidifiers can be configured to operate with one or two steam blowers. Multiple SDU-017 are used remotely with Model XTP 025 or 033.



# XT steam blower

**FIGURE 11-1: XT STEAM BLOWER DIMENSIONS**

SDU-006E shown



OM-7688

Table 11-1: XT steam blower dimensions				
Dimension	SDU-006E		SDU-017E	
	inches	mm	inches	mm
A	14.7	373	17.9	455
B	6.0	152	13.8	350
C	7.8	198	11.0	279
D	3.0	76	3.6	91
E	3.9	99	7.1	180
F	2.7	69	4.2	107

Table 11-2: Single or multiple XT steam blowers for XT Series humidifiers*			
Model	SDU-006 per kit	SDU-017 per kit	
XTP			
002	1	—	
003	1	—	
006	1	—	
010	—	1	
017	—	1	
025	—	2	
033	—	2	
042 through 083	n/a	n/a	

\* XT steam blowers are sold as kits to match the associated XT Series humidifier. The number of XT steam blowers per kit are shown in this table.

Table 11-3: XT steam blower specifications											
Model	Maximum capacity		Shipping weight		Operating weight		Volume airflow		Current draw at 115V (50/60 Hz)	Input power	Noise
	lbs/hr	kg/h	lbs	kg	lbs	kg	cfm	m <sup>3</sup> /min			
SDU-006E	20	9.1	14.0	6.4	11.0	5.0	106	3.0	0.16 A	17 W	49 dBA
SDU-017E	50	22.7	29.0	13.2	24.0	10.9	665	18.8	0.23 A	23 W	53 dBA

Notes:

- XT steam blowers ship separately from XT Series humidifiers.
- Noise measurements taken 6.5' (2 m) in front of XT steam blower cabinet.

# XT steam blower rise, spread, throw

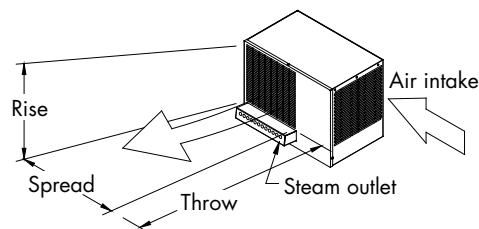
On a call for humidity, the controller closes the contactors to energize the humidifier electrodes and the XT steam blower. When the call for humidity is satisfied, the controller opens the humidifier contactor, which stops the steam blower.

As steam is discharged from the XT steam blower, it quickly cools and turns to a visible fog that is lighter than air. As this fog is carried away from the XT steam blower by the airstream, it tends to rise toward the ceiling. If the fog contacts solid surfaces (columns, beams, ceiling, pipes, etc.) before it disappears, it can condense and drip. The greater the space relative humidity, the further the fog will rise, spread, and throw.

Table 12-1 lists the maximum rise, spread, and throw non-wetting distances for XT Series humidifiers with XT steam blowers. Surfaces cooler than ambient temperature, or objects located within this minimum dimension, can cause condensation and dripping. To avoid steam impingement on surrounding areas, observe the minimum non-wetting distances in the table.

XT steam blowers are field wired to the XT Series humidifier blower terminals. A wiring diagram is included with the XT steam blower.

**FIGURE 12-1: XT STEAM BLOWER RISE, SPREAD, THROW**



OM-7686

**Table 12-1:**  
XT steam blower minimum non-wetting distances

Model	Nominal steam capacity		30% RH @ 70 °F (21 °C)				40% RH @ 70 °F (21 °C)				50% RH @ 70 °F (21 °C)				60% RH @ 70 °F (21 °C)											
			Rise		Spread		Throw		Rise		Spread		Throw		Rise		Spread		Throw							
XTP	lbs/hr	kg/h	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m		
002	5	2	0.7	0.2	0.9	0.3	1.9	0.6	0.8	0.2	1.2	0.4	2.1	0.6	1.1	0.3	1.5	0.5	2.5	0.8	1.5	0.5	1.5	0.5	3.2	1.0
003	10	5	1.4	0.4	1.9	0.6	3.8	1.2	1.7	0.5	2.4	0.7	4.3	1.3	2.3	0.7	3.0	0.9	5.0	1.5	3.0	0.9	3.0	0.9	6.5	2.0
006	20	9	2.5	0.8	2.8	0.9	6.5	2.0	3.0	0.9	3.3	1.0	7.4	2.3	3.8	1.2	4.0	1.2	8.5	2.6	4.0	1.2	4.0	1.2	10.0	3.0
010	30	14	3.1	0.9	3.0	0.9	7.5	2.3	3.6	1.1	3.4	1.0	8.7	2.7	4.3	1.3	4.0	1.2	9.5	2.9	4.2	1.3	3.5	1.1	11.0	3.4
017	50	22	3.3	1.0	3.1	0.9	9.6	2.9	3.8	1.2	3.5	1.1	10.7	3.3	4.4	1.3	4.0	1.2	12.0	3.7	4.8	1.5	4.7	1.4	14.0	4.3
025*	75	34	3.3	1.0	3.1	0.9	9.6	2.9	3.8	1.2	3.5	1.1	10.7	3.3	4.4	1.3	4.0	1.2	12.0	3.7	4.8	1.5	4.7	1.4	14.0	4.3
033*	100	45	3.3	1.0	3.1	0.9	9.6	2.9	3.8	1.2	3.5	1.1	10.7	3.3	4.4	1.3	4.0	1.2	12.0	3.7	4.8	1.5	4.7	1.4	14.0	4.3

Rise: Minimum non-wetting height above the steam outlet of the XT steam blower  
 Spread: Minimum non-wetting width from the steam outlet of the XT steam blower  
 Throw: Minimum non-wetting horizontal distance from the steam outlet of the XT steam blower  
 \* These models use two XT steam blowers.

# Interconnecting steam hose and tubing

## CONDENSATE CONTROL AND COLLECTION

Controlling condensate flow and collection in an XT Series humidifier system is critical to performance. To maximize humidifier performance:

- See Tables 13-1 and Table 13-2.
- Follow all installation recommendations for your specific humidifier and dispersion assembly in the [XT Series Installation, Operation, and Maintenance Manual \(IOM\)](#), available at [www.drirsteem.com](http://www.drirsteem.com).

**Table 13-1:**  
Maximum steam carrying capacity and length of interconnecting steam hose and tubing for Models XTP 002 through XTP083

Model	DriSteem steam hose*						Copper or stainless steel tubing (Insulate tubing to minimize loss of capacity and efficiency.)					
	Hose I.D.		Maximum capacity per cylinder†		Maximum length††		Tube size		Maximum capacity per cylinder†		Maximum developed length†††	
XTP	inches	DN	lbs/hr	kg/h	ft	m	inches	DN	lbs/hr	kg/h	ft	m
002	1½	40	5	2	10	3	1½	40	5	2	13	4.0
003	1½	40	10	5	10	3	1½	40	10	5	25	7.6
006	1½	40	20	9	10	3	1½	40	20	9	50	15.2
010	1½	40	30	14	10	3	1½	40	30	14	50	15.2
017	1½	40	50	22	10	3	1½	40	50	22	50	15.2
025, 050**	1½	40	75	34.0	10	3	1½	40	75	34.0	100	30
033, 067**	2	50	100	45.4	10	3	2	50	100	45.4	100	30
042, 083**	2	50	125	56.7	10	3	2	50	125	56.7	100	30

**Notes:**

- Values in this table are based on XT Series humidifiers, and condensate flowing in direction of steam (steam hose or tubing pitched toward dispersion device).
- \* Use DriSteem steam hose for best results. Field-supplied hose may have shorter life and may cause foaming in cylinder, resulting in condensate discharge at dispersion assembly. Do not use steam hose for outdoor applications.
- \*\* These models have two steam cylinders. Capacities based on use with fill cup extensions. Hose and tubing information stated above is for each steam cylinder.
- † For Models XTP 050 through XTP 083, capacities listed are maximum steam carrying capacity per tube attached to each cylinder, with separate steam tubing from each cylinder to connection on dispersion device.
- †† DriSteem recommends 10' (3 m) maximum steam hose length pitched at 2"/ft (15%). Steam hose can sag if not supported for its full length. Sagging leads to collecting condensate and system pressure issues. Metallic tubing is less prone to sagging and can allow for 1/8"/ft (1%) pitch minimum and longer distances.
- ††† Developed length of tubing equals measured length plus 50% of measured length, to account for fittings.

# Interconnecting steam hose and tubing

**Table 14-1:**  
**Steam loss of interconnecting steam hose and tubing**

Description	Nominal hose or tubing size		Steam loss				Insulation thickness	
			Noninsulated		Insulated			
	inches	DN	lbs/hr/ft	kg/h/m	lbs/hr/ft	kg/h/m	inches	mm
Steam hose	1½	40	0.15	0.22	N/A	N/A	N/A	N/A
	2	50	0.20	0.30	N/A	N/A	N/A	N/A
Tubing	1½	40	0.11	0.164	0.02	0.03	2	50
	2	50	0.14	0.21	0.025	0.037	2	50

Note: These data are based on an ambient air temperature of 80 °F (27 °C), fiberglass insulation, and copper tubing.

**Important:**

Steam hose must be supported for its full length to prevent sagging or low spots.

