

READ AND SAVE THESE INSTRUCTIONS



SDU-I-RX AND SDU-E-RX

For RTS Humidifier

Installation, Operation,
and Maintenance Manual

Dimensions

FIGURE 2-1: SDU-I-RX MECHANICAL DETAIL

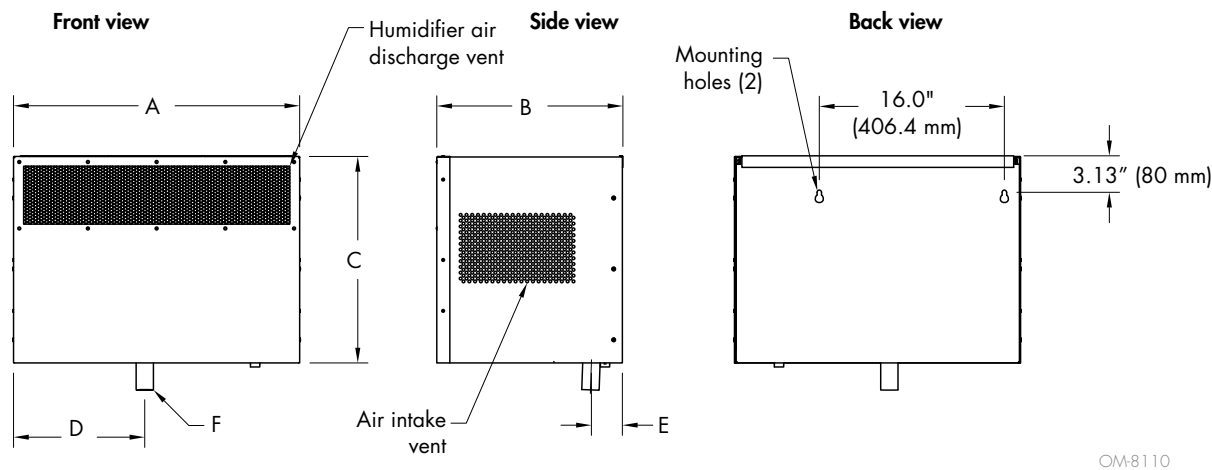


FIGURE 2-2: SDU-E-RX MECHANICAL DETAIL

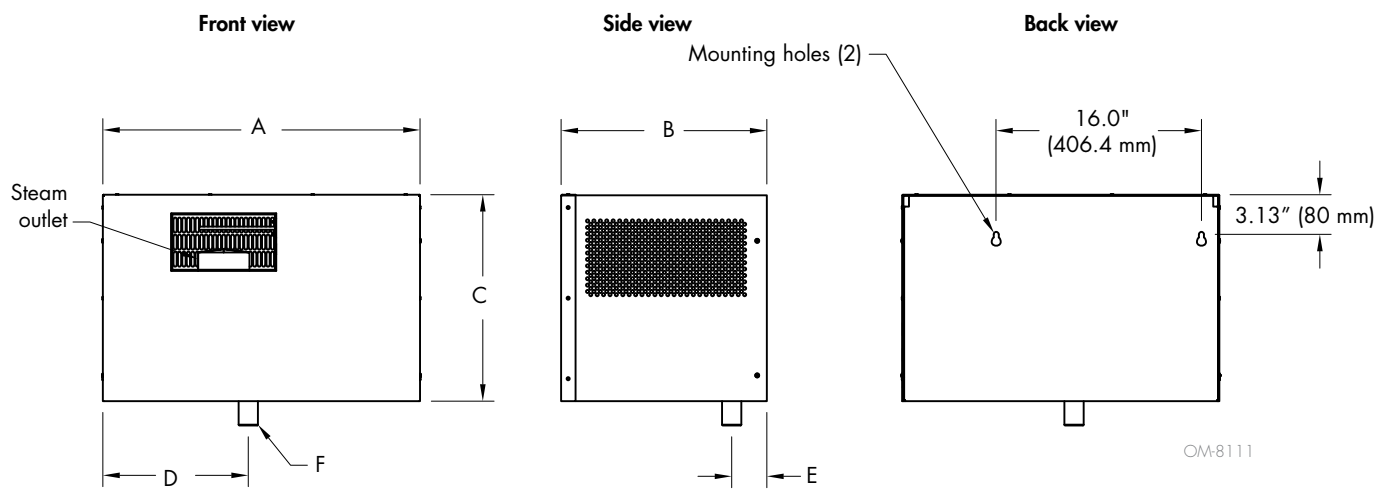
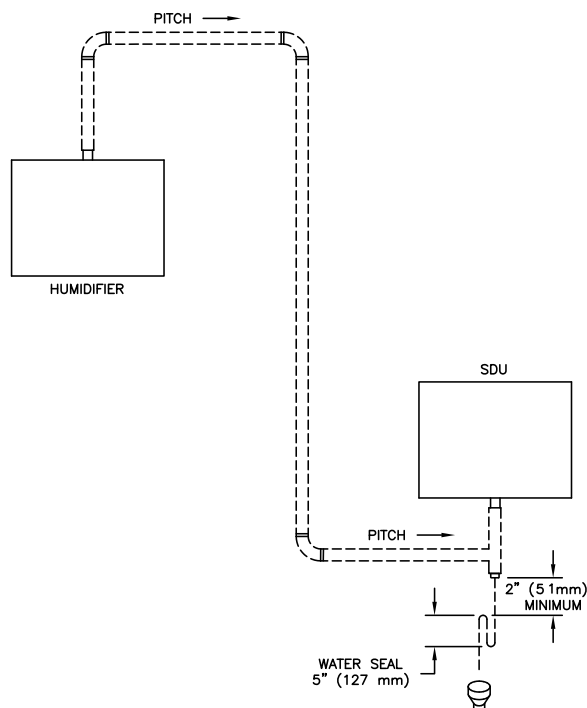


Table 2-1: SDU dimension												
SDU model	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
SDU-I-RX	24.7	627	16.0	406	17.9	455	11.4	290	2.8	70	Ø1.5	Ø38
SDU-E-RX (SM)	24.7	627	16.0	406	16.1	409	11.4	290	2.8	70	Ø1.5	Ø38
SDU-E-RX (MD)	26.2	665	20.0	508	16.1	409	11.9	302	3.3	83	Ø2.0	Ø51

Specifications

FIGURE 3-1: PIPING WHEN SDU IS BELOW HUMIDIFIER



OM-7832

SDU-E-RX: HIGHER CAPACITY, UP TO 102 LBS/HR

SDU-E-RX (Space Distribution Unit External Absorption) is designed for higher capacity dispersion.

MOUNTING SDU-E-RX

- Spread dimensions greater than 3' (1 m) may require additional side clearance. See Table 3-1).

Table 3-1:
SDU specifications

SDU model	Maximum capacity		Shipping weight		Amps at 120V (50/60 Hz)	Horsepower	cfm	m ³ /s	dB*
	lbs/hr	kg/h	lbs	kg					
SDU-I-RX	30	13.6	67	30.4	3.20	1/5	760	0.36	58
SDU-E-RX (SM)	70	31.8	61	27.7	2.07	1/8	545	0.26	64
SDU-E-RX (MD)	102	45.5	70	31.7	2.07	1/8	545	0.26	64

* Measurement taken 6.5' (2 m) in front of SDU cabinet.
 SDU-I-RX is available for all RX-XX-1 models up to 30 lbs/hr.
 SDU-E-RX (SM) is available for all RX-XX-1 models.
 SDU-E-RX (MD) is available for all RX-XX-2 models up to 102 lbs/hr.
 RX-XX-3 and RX-XX-4 models cannot be used with an SDU.
 SDU's ship separate from the RX humidifier.

Mounting

MOUNTING SDU-I-RX AND SDU-E-RX

SDUs can be mounted on a wall directly above a RTS humidifier cabinet, 18" above any other DriSteem humidifier, or mounted on a wall remote from the humidifier.

- Installation must comply with governing codes.
- See www.dristeem.com for interconnecting piping requirements.
- Provide at least 6" (150 mm) clearance on each side of the SDU.
- Field wiring is required to connect the SDU fan and airflow proving switch terminals to humidifier electrical panel terminals. Refer to the wiring diagram in the package shipped with your unit. Minimum wire size for field wiring is 18-gauge (1.5 mm²) stranded wire.
- Two 3/8" lag bolts (M10 × 50 mm coach screws) are provided with each fan unit.
- When mounting on a stud wall (studs 16" [406 mm] on center), locate studs and position lag bolts (coach screws) in place so that each of the two lag bolts (coach screws) centers on a stud. Mark hole locations and predrill 1/4" (6 mm) diameter pilot holes for a 3/8" × 2" lag bolt (M10 × 50 mm coach screw).
- For hollow block or poured concrete wall mounting, drill appropriate pilot hole for two 3/8" (M10) toggle bolts or two 3/8" (M10) machine bolt lead anchors (expansion bolts). Secure SDU frame in place.
- To provide power to the SDU used with 208V/240V/single-phase and 208V/three-phase humidifiers, run a neutral line with the power supply to provide a 120V circuit for the fan.
- On a call for humidity, the humidifier begins producing steam, and the start relay energizes the SDU blower. When the call for humidity is satisfied, the Vapor-logic controller keeps the blower running to disperse residual moisture using a time delay.

NOTES:

Failure to follow the recommendations in this section can result in excessive back pressure on the humidifier. This will result in humidification system problems including leaking gaskets, blown water seals, erratic water level control, and spitting condensate from dispersion tubes.

SDU-I-RX: INSTANT, INTERNAL ABSORPTION, UP TO 30 LBS/HR

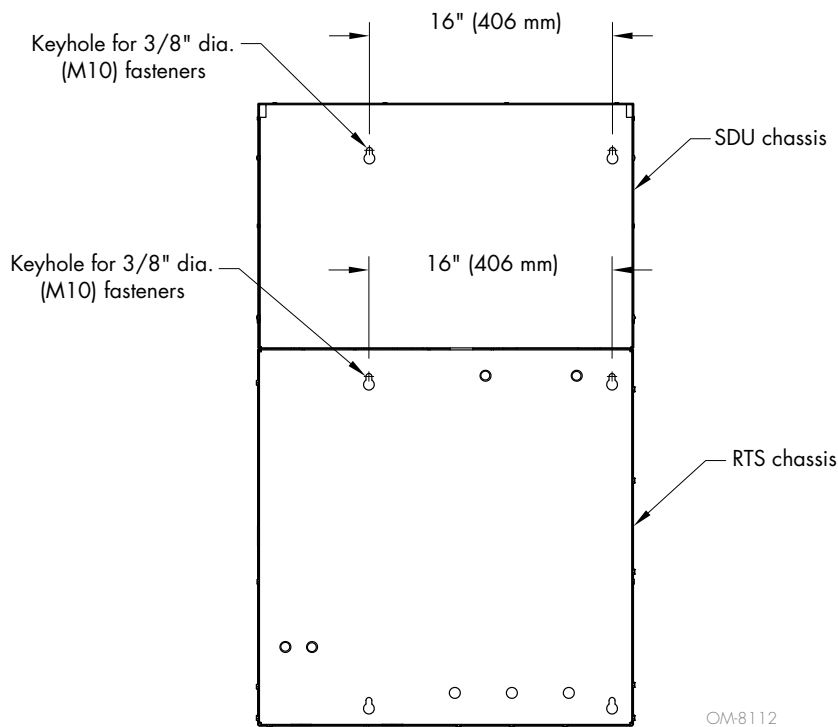
SDU-I-RX (Space Distribution Unit Internal Absorption) disperses humidity with no visible vapor trail or wetness, making it ideal for use in finished spaces. The SDU-I-RX fan mixes room air and steam to ensure complete absorption before discharge as humidified air.

IMPORTANT:

For visible vapor to be absorbed completely within the SDU-I-RX unit before being discharged as humidified air, room air must be 45% RH or less. Trying to maintain greater than 45% RH will cause visible vapor and potential for moisture collection on the discharge grille.

Mounting

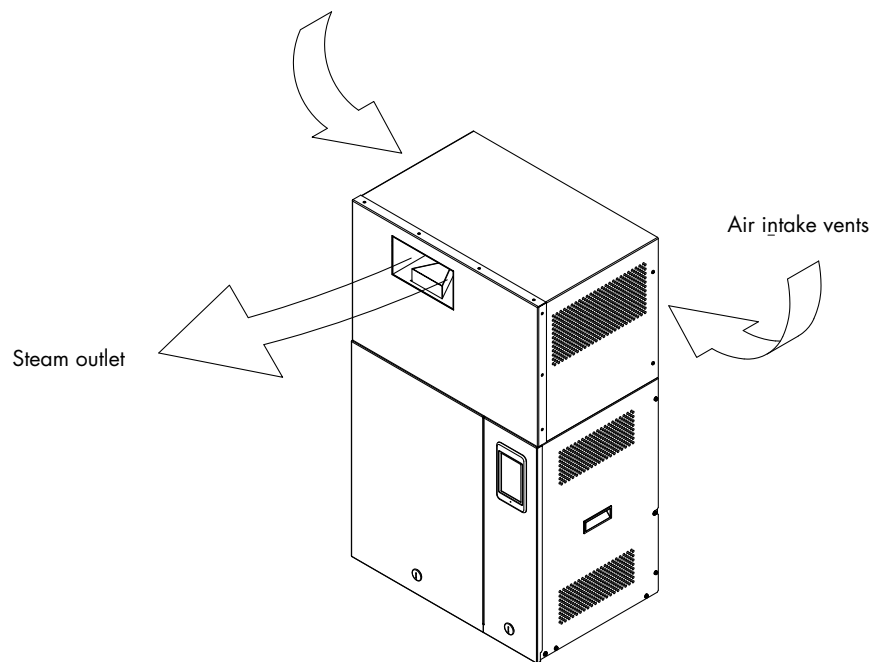
FIGURE 5-1: STACKING A WALL-MOUNTED RTS AND SDU-I-RX OR SDU-E-RX



Note:

When mounting SDU directly above humidifier, discard four (4) enclosure screws securing top panel to rear upper frame rail. For side humidifier service access, screws must be removed from both sides. This allows top/right panel and left panel to be removed as an assembly.

FIGURE 5-2: STACKING A WALL-MOUNTED RTS AND SDU-I-RX OR SDU-E-RX



Nonwetting distances

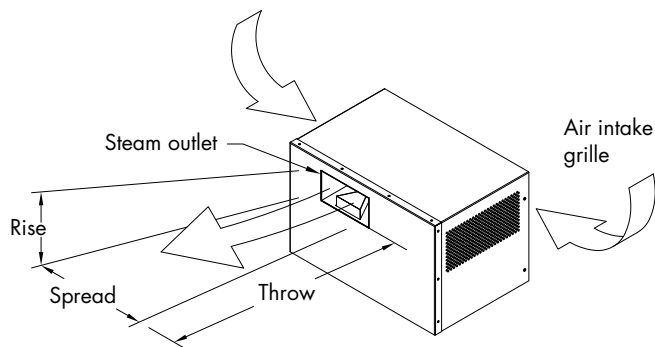
Table 6-1:
SDU-E-RX minimum nonwetting distances

kW	Maximum steam capacity		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	
	lbs/hr	kg/h	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m
2	6	2.7	1.0	0.3	1.0	0.3	5.0	1.5	1.5	0.5	1.5	0.5	6.5	2.0	2.5	0.8	2.5	0.8	7.5	2.3
4	12	5.4	1.0	0.3	1.0	0.3	5.0	1.5	1.5	0.5	1.5	0.5	6.5	2.0	2.5	0.8	2.5	0.8	7.5	2.3
6	18	8.2	1.0	0.3	1.0	0.3	5.0	1.5	1.5	0.5	1.5	0.5	6.5	2.0	2.5	0.8	2.5	0.8	7.5	2.3
8	24	10.9	1.0	0.3	1.0	0.3	5.5	1.7	1.5	0.5	1.5	0.5	6.5	2.0	2.5	0.8	2.5	0.8	7.5	2.3
10	30	13.6	1.5	0.5	1.5	0.5	6.0	1.8	2.0	0.6	2.0	0.6	7.0	2.1	3.0	1.0	3.0	1.0	8.0	2.5
12	36	16.3	1.5	0.5	1.5	0.5	6.0	1.8	2.0	0.6	2.0	0.6	7.0	2.1	3.0	1.0	3.0	1.0	8.0	2.5
14	42	19.1	2.0	0.6	2.0	0.6	7.0	2.1	2.0	0.6	2.0	0.6	7.0	2.1	3.0	1.0	3.0	1.0	9.0	2.7
16	48	21.8	2.0	0.6	2.0	0.6	7.0	2.1	2.0	0.6	2.0	0.6	7.0	2.1	3.0	1.0	3.0	1.0	9.0	2.7
21	63	28.6	2.0	0.6	2.0	0.6	7.5	2.3	2.5	0.8	2.5	0.8	10.0	3.0	3.0	1.0	3.0	1.0	12.0	3.7
25	75	34.0	2.0	0.6	2.0	0.6	8.0	2.5	2.5	0.8	2.5	0.8	10.5	3.2	3.5	1.1	3.5	1.1	12.5	3.8
30	90	40.9	2.0	0.6	2.0	0.6	8.0	2.5	2.5	0.8	2.5	0.8	10.5	3.2	3.5	1.1	3.5	1.1	12.5	3.8
34	102	46.3	2.0	0.6	2.0	0.6	8.0	2.5	2.5	0.8	2.5	0.8	10.5	3.2	3.5	1.1	3.5	1.1	12.5	3.8

Notes:

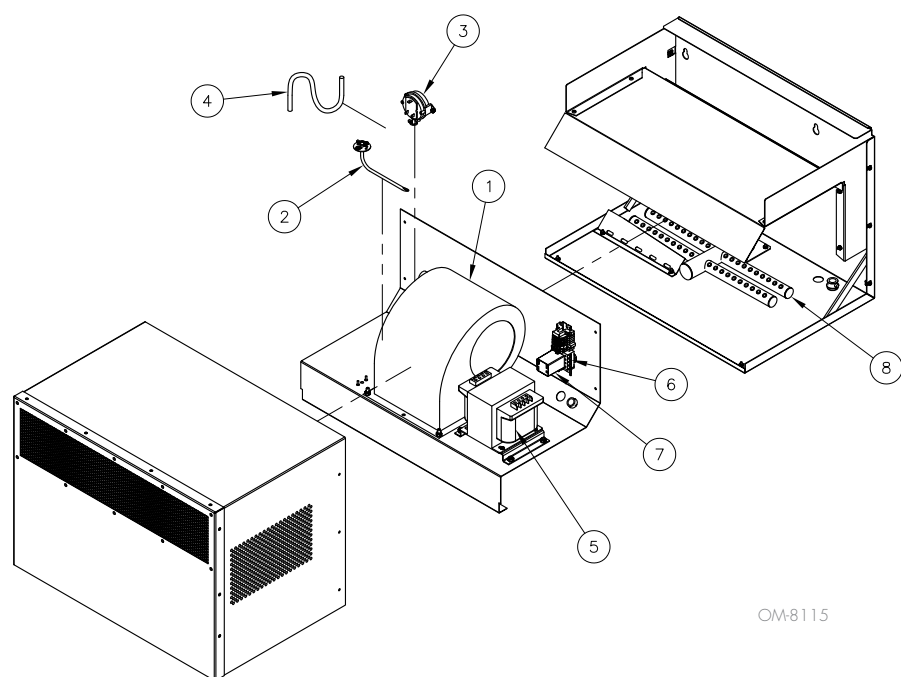
- Surfaces or objects directly in the path of steam discharge may cause condensation and dripping.
- To avoid steam impingement on surrounding areas, observe the minimum nonwetting dimensions in this table.
- Rise: The minimum nonwetting height above the steam outlet of the SDU-E-RX.
- Spread: The minimum nonwetting width from the steam outlet of the SDU-E-RX.
- Throw: The minimum nonwetting horizontal distance from the steam outlet of the SDU-E-RX.

FIGURE 6-1: SDU-E-RX RISE, SPREAD, AND THROW



OM-8114

SDU-I-RX

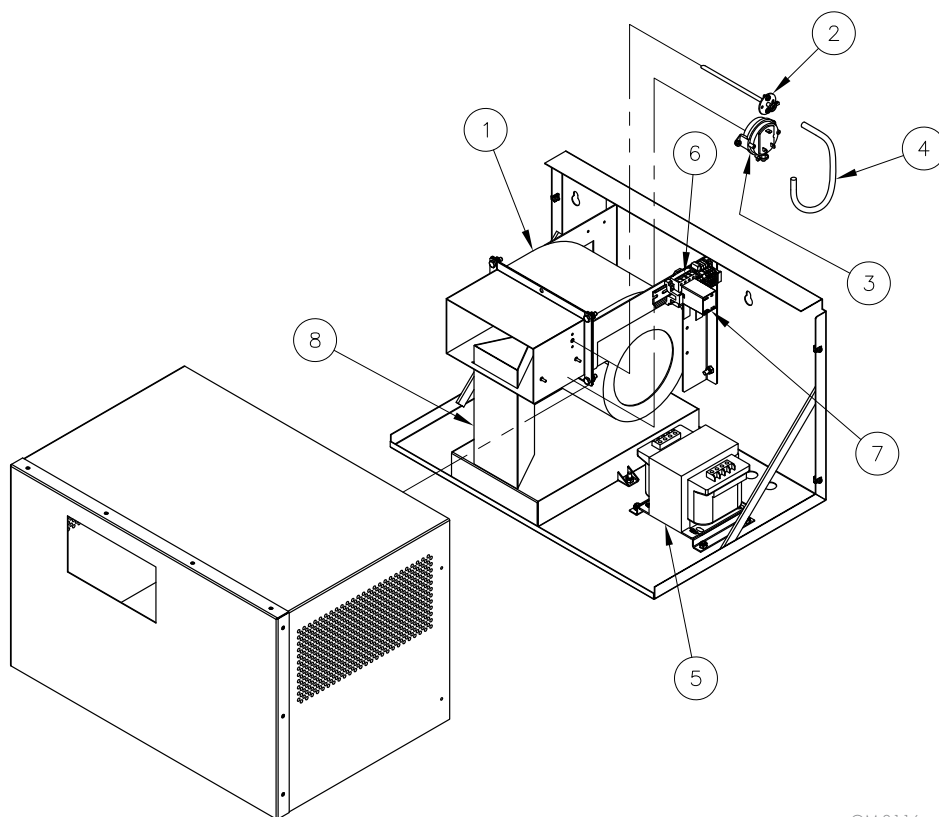
FIGURE 7-1: SDU-I-RX REPLACEMENT PARTS

OM-8115

Table 7-1:
SDU-I-RX replacement parts

No.	Description	Qty.	Part No.
1	BLOWER 2 SPEED #1TDT8A	1	409540-004
2	TUBE 90° BEND AIR FLOW	1	406190-001
3	PRESSURE SWITCH 0.10" WC	1	127601-002
4	TUBING 3/8" X 12" X .060 CLEAR VINYL	1	405722
5	TRANSFORMER 480V TO 120V 500VA GE	1	408996-008
	TRANSFORMER 600V TO 120V 500VA GE	1	408996-009
	TRANSFORMER 230/400V TO 120V 500VA CE	1	408996-011
	TRANSFORMER 208/277/380 V TO 115V 500VA.	1	408996-012
6	RELAY 24V DPDT FINDER	1	407900-016
7	SOCKET RELAY DPDT W/OUT TIME DELAY	1	407900-019
8	DISPERSION, SDU-I-RX ASSEMBLY	1	180005

SDU-E-RX

FIGURE 8-1: SDU-E-RX REPLACEMENT PARTS

OM-8116

Table 8-1:
SDU-E-RX replacement parts

No.	Description	Qty.	Part No.
1	BLOWER 2 SPEED #1TDT8A	1	409540-004
2	TUBE STRAIGHT AIR FLOW SDU	1	406190-003
3	PRESSURE SWITCH 0.10" WC	1	127601-002
4	TUBING 3/8" OD X 12" X .060 WALL CLEAR VINYL	1	405722
5	TRANSFORMER 240/480V TO 120V 300VA	1	408991
	TRANSFORMR 230/460/575V TO 115/95V 300VA	1	408992
	TRANSFORMER 208/277/380V TO 115/95V 300V	1	408996-004
	TRANSFORMER 230/400V TO 120V 500VA CE	1	408996-011
6	SOCKET RELAY DPDT W/OUT TIME DELAY	1	407900-019
7	RELAY 24V DPDT FINDER	1	407900-016
8	DISPERSION CHAMBER 1-1/2" RTS SDU-E-RX	1	160445-915
	DISPERSION CHAMBER 2" RTS SDU-E-RX	1	160445-902

Notes

Notes

Notes

Expect quality from the industry leader

Since 1965, DriSteem has led the industry with innovative methods for humidifying and cooling air with precise control. Our focus on ease of ownership is evident in the design of our humidifiers. DriSteem also leads the industry with a Two-year Limited Warranty and optional extended warranty.

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