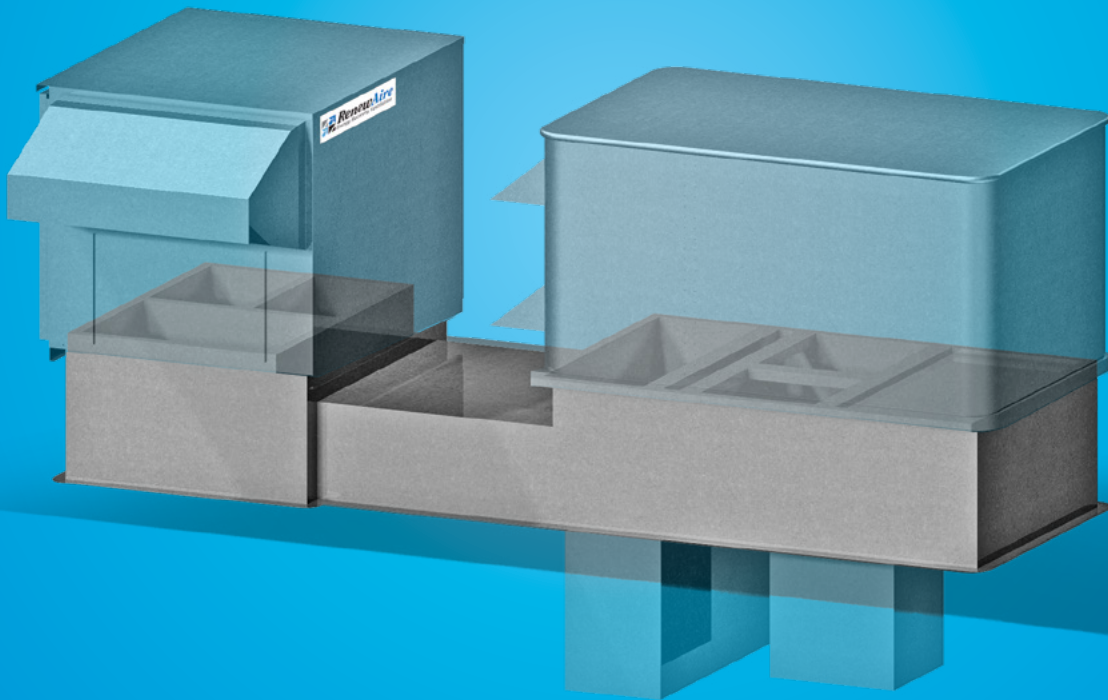




ENGINEERED

# COMBO CURBS

EFFICIENTLY SUPPORTING VENTILATION REQUIREMENTS FOR CARRIER RTUs



DESIGNED TO WORK WITH CARRIER ROOFTOP UNITS & RENEWAIRE ERVs

**RENEWAIRE EVERYWHERE**

EVERY GEOGRAPHY, EVERY CLIMATE, EVERY HOME,  
EVERY BUILDING AND EVERY APPLICATION

# ENGINEERED COMBO CURBS

## KEY BENEFITS

RenewAire Engineered Combo Curbs easily combine Carrier rooftop units with our energy recovery ventilators (ERVs). They eliminate the need for transitional ductwork between the RTU and the ERV, reducing the time and costs of installation.

Simply install the curb, run the return and supply duct to the curb openings, then install the Carrier and RenewAire units onto the curb. Additionally, the curbs allow the Carrier unit to function in its standard operation as well as full-flow economizer modes.

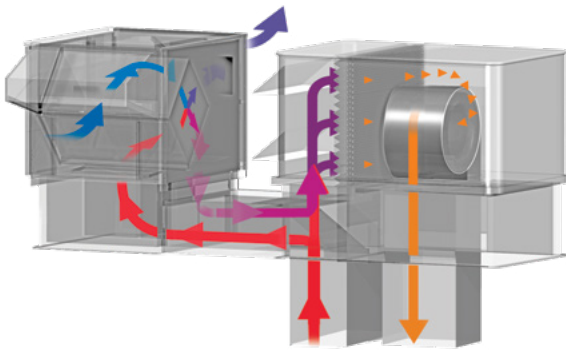
## APPLICATIONS

EA: Exhaust Air  
OA: Outdoor Air

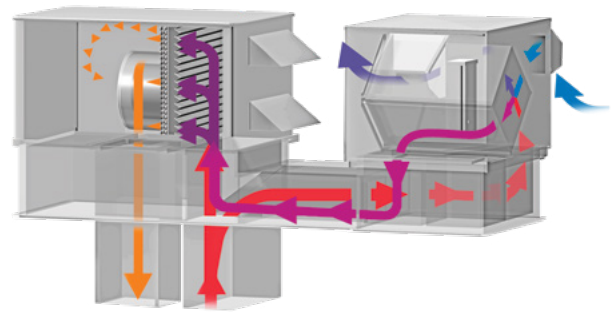
RA: Room Return Air  
CA: Conditioned Air

SA: Supply Air  
RA/SA: Mixed Room and Supply Air

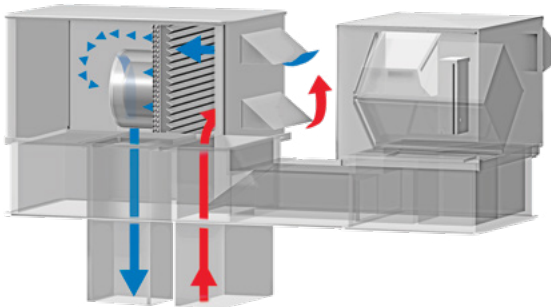
**STANDARD OPERATION-VIEW 1**  
(Heating Application)



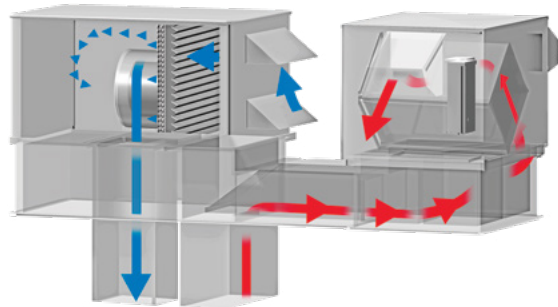
**STANDARD OPERATION-VIEW 2**  
(Heating Application)



**STANDARD RTU ECONOMIZER OPERATION**

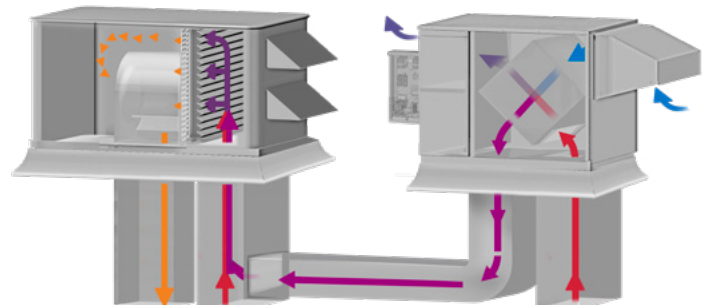


**RENEWAIRE ERV POWERED RELIEF**



## TRADITIONAL CURB APPLICATION (STAND ALONE UNITS)

- ◆ Transitional ductwork required between the ERV and the rooftop unit
- ◆ Two curbs required
- ◆ Two sets of rooftop penetrations



# ENGINEERED COMBO CURBS

## SELECTING A CURB

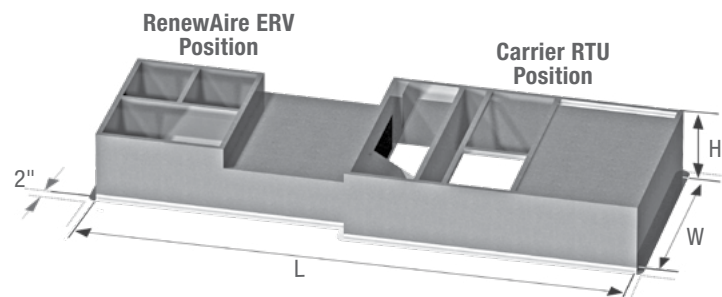
CARRIER ROOFTOP UNIT			RENEWAIRE ERV		RENEWAIRE COMBO CURB				
Line	Model	Tonnage	CFM Range	Model	Model	Length (L)	Width (W)	Height (H)	Weight (est.)
WeatherMaker	48FE, 50FCQ	04 (3 ton), 05 (4 ton), 06 (5 ton), 07 (6 ton)	166-694	HE07RTV	ECCWF07	113 5/8"	70"	20"	706 lbs.
WeatherMaster	48GC, 48GE, 48QE	04 (3 ton), 05 (4 ton), 06 (5 ton)	250-1100	HE10RTV	ECCWF10	100 1/4"	70"	20"	737 lbs.
WeatherMaster	48QEG, 50GE, 50GEQ	04 (3 ton), 05 (4 ton), 06 (5 ton)			ECCWF15	110 1/8"	70"	20"	632 lbs.
WeatherExpert	48JC, 50JC	04 (3 ton), 05 (4 ton), 06 (5 ton)			ECCWF20	119 7/8"	70"	20"	688 lbs.
WeatherMaker	48FE, 50FE	08 (7.5 ton), 09 (8.5 ton), 12 (10 ton), 14 (12.5 ton)			ECCWG07	126 5/8"	81"	20"	833 lbs.
WeatherMaster	50FEQ	08 (7.5 ton), 09 (8.5 ton), 12 (10 ton)	250-1100	HE10RTV	ECCWG10	113 1/4"	81"	20"	816 lbs.
WeatherMaster	48GC, 48GE, 50GE	07 (6 ton), 08 (7.5 ton), 09 (8.5 ton), 12 (10 ton)			ECCWG15	123 1/8"	81"	20"	720 lbs.
WeatherMaster	48QE, 50GQ	07 (6 ton), 08 (7.5 ton), 09 (8.5 ton)			ECCWG20	132 7/8"	81"	20"	764 lbs.
WeatherExpert	48WE	07 (6 ton), 08 (7.5 ton), 09 (8.5 ton), 12 (10 ton)			ECCWG3X	150 7/8"	81"	20"	832 lbs.
WeatherExpert	50WE	07 (6 ton)			ECCWG4X	170 5/8"	81"	25"	894 lbs.
WeatherMaker	50FEQ	14 (12.5 ton)			250-1000	HE10RTV	ECCWH10	117 1/4"	109"
WeatherMaker	48FE, 50FE	16 (15 ton)	ECCWH15	127 1/8"			109"	20"	927 lbs.
WeatherMaster	48QE, 50GEQ	12 (10 ton)	ECCWH20	136 7/8"			109"	20"	965 lbs.
WeatherMaster	48GC, 48GE, 50GE	14 (12.5 ton)	ECCWH3X	154 7/8"			109"	20"	1042 lbs.
WeatherExpert	50WE	08 (7.5 ton), 09 (8.5 ton), 12 (10 ton)	ECCWH4X	174 5/8"			109"	25"	1129 lbs.
WeatherMaker	50FEQ	17 (15 ton)	250-1100	HE10RTV			ECCWI10	181 1/4"	80"
WeatherMaker	48FE, 50FE	20 (17.5 ton)			ECCWI15	191 1/8"	80"	20"	801 lbs.
WeatherMaster	48GC, 48GE, 50GE	17 (15 ton)			ECCWI20	200 7/8"	80"	20"	864 lbs.
					ECCWI3X	218 7/8"	80"	20"	933 lbs.
					ECCWI4X	238 5/8"	80"	25"	1010 lbs.
					ECCWI6	282 1/4"	102 1/4"	25"	1162 lbs.
					ECCWI8	282 1/4"	102 1/4"	30"	1336 lbs.
					ECCWI8	282 1/4"	102 1/4"	30"	1336 lbs.
					LE5XRTV	251 1/2"	80"	25"	1191 lbs.
					LE6XRTV	341 1/2"	80"	30"	1369 lbs.
					LE8XRTV	400 1/2"	80"	30"	1524 lbs.

Note: Curb measurements do not include 2" flange.

# ENGINEERED COMBO CURBS

## SELECTING A CURB

CARRIER ROOFTOP UNIT			RENEWAIRE ERV		RENEWAIRE COMBO CURB				
Line	Model	Tonnage	CFM Range	Model	Model	Length (L)	Width (W)	Height (H)	Weight (est.)
WeatherMaker	48FE, 50FE, 50FEQ	24 (20 ton), 28 (25 ton)	250-1100	HE10RTV	ECCWJ10	195 1/2"	80"	20"	945 lbs.
WeatherMaster	48QE, 50GEQ	17 (15 ton)	369-1621	HE15RTV	ECCWJ15	205 1/8"	80"	20"	845 lbs.
WeatherMaster	48GC, 48GE, 50GE	20 (17.5 ton), 24 (20 ton)	500-2200	HE20RTV	ECCWJ20	214 7/8"	80"	20"	890 lbs.
			750-3300	HE3XRTV	ECCWJ3X	232 7/8"	80"	20"	961 lbs.
			1000-4400	HE4XRTV	ECCWJ4X	252 5/8"	80"	25"	1041 lbs.
			1500-6600	HE6XRTV	ECCWJ6	296 1/4"	102 1/4"	25"	1263 lbs.
			1750-7700	HE7XRTV	ECCWJ8	296 1/4"	102 1/4"	30"	1460 lbs.
			2000-8800	HE8XRTV	ECCWJ8	296 1/4"	102 1/4"	30"	1460 lbs.
			1250-5500	LE5XRTV	ECCWJ5X	265 1/2"	80"	25"	1238 lbs.
			1500-6600	LE6XRTV	ECCWJ6X	355 1/2"	80"	30"	1411 lbs.
			2000-8800	LE8XRTV	ECCWJ8X	414 1/2"	80"	30"	1597 lbs.
WeatherMaker	48FE, 50FE	30 (27.5 ton)	250-1100	HE10RTV	ECCWK10	211 1/4"	80"	20"	986 lbs.
WeatherMaster	48QE, 50GEQ	24 (20 ton), 28 (25 ton)	369-1621	HE15RTV	ECCWK15	221 1/8"	80"	20"	904 lbs.
WeatherMaster	48GC, 48GE, 50GE	28 (25 ton)	500-2200	HE20RTV	ECCWK20	230 7/8"	80"	20"	936 lbs.
			750-3300	HE3XRTV	ECCWK3X	248 7/8"	80"	20"	925 lbs.
			1000-4400	HE4XRTV	ECCWK4X	268 5/8"	80"	20"	965 lbs.
			1500-6600	HE6XRTV	ECCWK6	312 1/4"	102 1/4"	25"	1326 lbs.
			1750-7700	HE7XRTV	ECCWK8	312 1/4"	102 1/4"	30"	1524 lbs.
			2000-8800	HE8XRTV	ECCWK8	312 1/4"	102 1/4"	30"	1524 lbs.
			1250-5500	LE5XRTV	ECCWK5X	281 1/2"	80"	25"	1285 lbs.
			1500-6600	LE6XRTV	ECCWK6X	371 1/2"	80"	30"	1464 lbs.
			2000-8800	LE8XRTV	ECCWK8X	430 1/2"	80"	30"	1657 lbs.

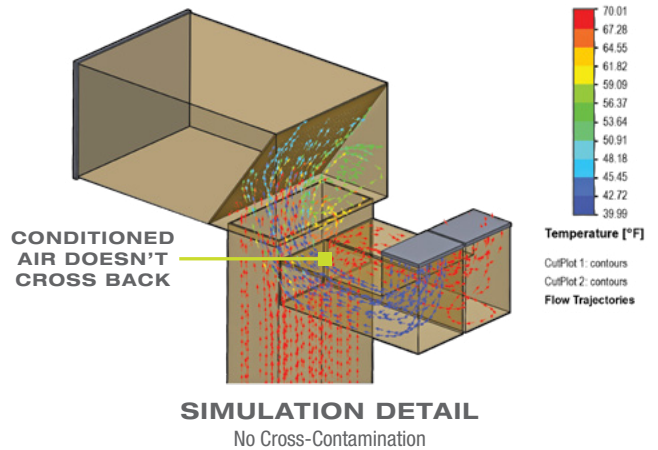


Note: Curb measurements do not include 2" flange.

# ENGINEERED EXCELLENCE

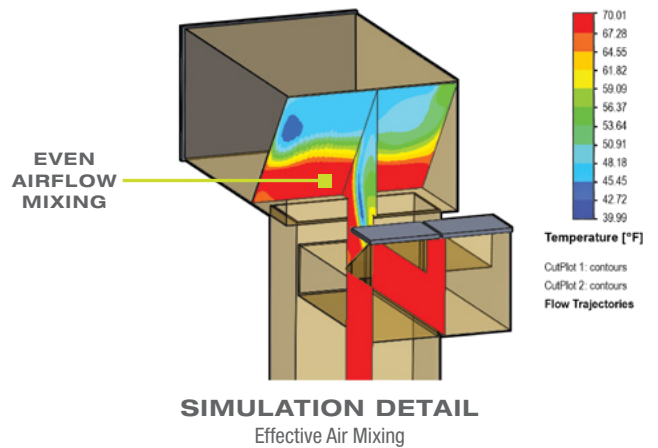
## ELIMINATE SHORT CIRCUITING AND CROSS CONTAMINATION

Through detailed analysis, using computational fluid dynamics, RenewAire has engineered the combo curbs so the conditioned supply airstream from the ERV does not cross back into the ERV's return air duct.



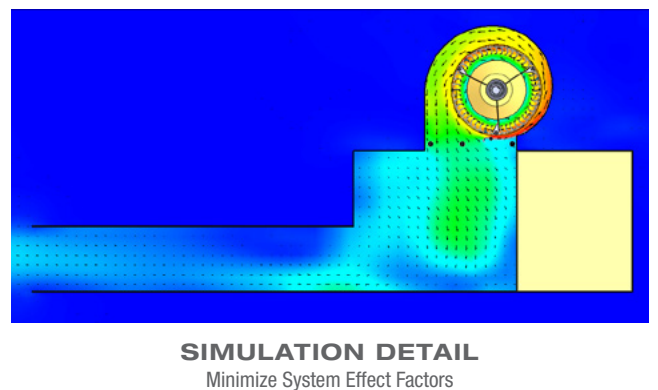
## PROVIDE HIGHLY EFFECTIVE AIR MIXING

RenewAire combo curbs have been engineered to provide appropriately distributed airflow from the ERV's supply airstream across the RTU's heating and cooling coils. This feature ensures design efficiencies of heating and cooling of the RTU are fully maintained.



## MINIMIZE SYSTEM EFFECT FACTORS

To ensure the highest levels of efficiency, the RenewAire combo curbs include an engineered component which minimizes negative system effect factors at the ERV's supply air blower opening, improving airflow across the curb and increasing efficiency.



## STANDARD CONSTRUCTION

- ◆ Prime G-90, 18-gauge galvanized steel
- ◆ Fully welded and mitered corners (single piece curb lift)
- ◆ Base flange attachments for securing to the building structure
- ◆ 1 1/2" 3 lb. density fiberglass insulation
- ◆ Reinforced with cross channel supports on center
- ◆ Conforms to ASTM A653/A653M (standard specification for sheet metal)

## AVAILABLE OPTIONS (SPECIAL ORDER)

- ◆ Seismic and/or wind load applications
- ◆ Pitched roof applications
- ◆ High vibration applications
- ◆ Custom curb heights
- ◆ Heavier metal gauges
- ◆ Aluminum liners

# RENEWAIRE

## ENGINEERED COMBO CURBS

RenewAire Engineered Combo Curbs create the perfect HVAC solution by combining trusted RenewAire ventilation with Carrier rooftop air-conditioning... AND reduce installation time!

### RENEWAIRE

HE07RTV  
HE10RTV  
HE15RTV  
HE20RTV  
HE3XRTV  
HE4XRTV

HE6XRTV  
HE7XRTV  
HE8XRTV  
LE5XRTV  
LE6XRTV  
LE8XRTV



### SUPPORTS CARRIER MODELS

WEATHEREXPERT

WEATHERMASTER

WEATHERMAKER

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