

**RVE Product Description**

**CASING**

- All RVE unit casing components are constructed of 22 gage galvanized steel with 20 gage galvanized steel or 22 gage 304/316 stainless steel options.

**INLET AND OUTLET COLLARS**

- All inlet and outlet collars are round and accommodate standard spiral or flex duct sizes.

**DAMPER ASSEMBLY**

- All unit sizes utilize a round volume control damper with a solid 1/2" shaft that rotates in self lubricating Delrin® bearings.
- Damper blade incorporates a flexible gasket for tight airflow shutoff and operates over a full 90° rotation.
- The damper position is marked by an arrow embossment on the end of the damper shaft.

**AIRFLOW SENSOR**

- All units are equipped with a factory installed airflow sensor device.
- The standard is a K4 LineaCross four quadrant center averaging sensor.
- An optional sensor is a linear, multi-point, velocity averaging sensor with an amplified signal. Stainless steel sensor is used with stainless steel casing.
- Balancing taps are provided to allow for easy airflow verification.

**CONTROLS**

- Pneumatic, analog or direct digital control types are available. Digital controls can be provided by others or Krueger for factory mounting. A "no control" unit is also available for field mounting of direct digital controls.

**CONTROL TRANSFORMER**

- Electronic controlled units are available with a factory supplied and wired optional 24 volt control transformer, mounted inside the control enclosure.

**LABELS**

- Label information adhered to each unit includes model name, unit size, configuration code, airflow (CFM), balancing chart, and tagging data.

**PACKAGING**

- Units are individually packaged in a carton and stacked on a pallet. Each pallet of units is banded and stretch wrapped with cellophane.

*NOTES: Damper leakage is measured with the damper fully closed using an actuator. A precision low flow orifice is used upstream of the unit to measure the leakage rate as a function of the measured upstream static pressure. Casing leakage is determined with the damper fully open and the discharge of the unit sealed. A precision low flow orifice is used upstream of the unit to measure the leakage rate as a function of the supplied static pressure. Leakage testing conducted in accordance with ASHRAE 130-2008.*

**RVE Selection Guidelines**

**Determine which retrofit design best suits your particular retrofit application.** Consider ease of access to the unit, need to re-duct to the inlet and amount of wiring/tubing required. In either case, the internal mechanical valve will need to be removed.

RVE units with pneumatic or analog controls are mounted to the unit and factory calibrated. This reduces the amount of field wiring/tubing to be performed. Since installation requires removing the existing inlet duct, re-ducting to the inlet is a consideration.

**Determine the required maximum and minimum airflow required for the zone.** Select the RVE unit rated for airflows compatible with the existing airflows. Keep in mind that the retrofit will add the ability to control airflow between maximum and minimum flow setpoints. These setpoints are field adjustable.

If a Krueger CVM Series terminal is to be retrofitted, it is recommended that the equivalent size RVE unit be selected. For instance, a CVM size 4 will need a size 4 RVE.

If terminals by other manufacturers are to be retrofitted, select the RVE unit based on volume (CFM) requirements and required dimensions.

Note: Maximum and minimum airflow capacities vary slightly with control package selected.

**Select the RVE control package to be used for the project.** Determine whether the retrofit unit is to be controlled by pneumatic, electric, analog, or factory mounted direct digital control.

Select the appropriate control scheme from the control's section. The RVE retrofit terminal can be shipped with DDC controls by most DDC manufacturers. As an option, Krueger can provide a factory mounted 24 volt actuator compatible with most DDC control offerings.

**RVE Damper & Casing Leakage**

**RVE, DAMPER & CASING LEAKAGE DETAIL**

Inlet Size	Damper Leakage		
	1.5" WG CFM	3.0" WG CFM	6.0" WG CFM
4	4	5	7
5	4	5	7
6	4	5	7
7	4	5	7
8	4	5	7
9	4	5	7
10	4	5	7
12	4	5	7
14	4	6	8
16	5	7	9

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