

ADE ENGINEERING UPDATE

Introducing the ALDES CAR-3

The Aldes CAR-3 is the newest and simplest product in their line of constant airflow regulators. The CAR-3 is a pressure independent balancing damper that automatically regulates airflow in duct systems by itself, meaning no external signals are required to modulate the CAR. At lower static pressures, the damper is more relaxed, providing maximum free area. At higher static pressures, the damper rotates to restrict duct free area.

What's new? No airflow is needed when specifying. All that's required is the duct size and external static pressure of the system at the CAR-3 location. The CAR-3 can adjust to any airflow in that range (reference figure 3 for airflow ranges). Other new features include dual-side airflow adjustment, which allows one to change the airflow setting quickly without removing the CAR-3 from the duct work. The dual-side airflow adjustment feature also allows one to change the airflow setting from either side of the CAR. Construction-wise, the new CARS are made of a thermoplastic resin with enhanced antimicrobial, anti-static and flame retardant additives. These new materials improve the longevity of the CAR while reducing the frequency for maintenance trips. In addition, the CAR-3 comes with a double lip gasket around the circumference to ensure a tight fit. This prevents any air leakage from occurring.



Figure 1: CAR-3

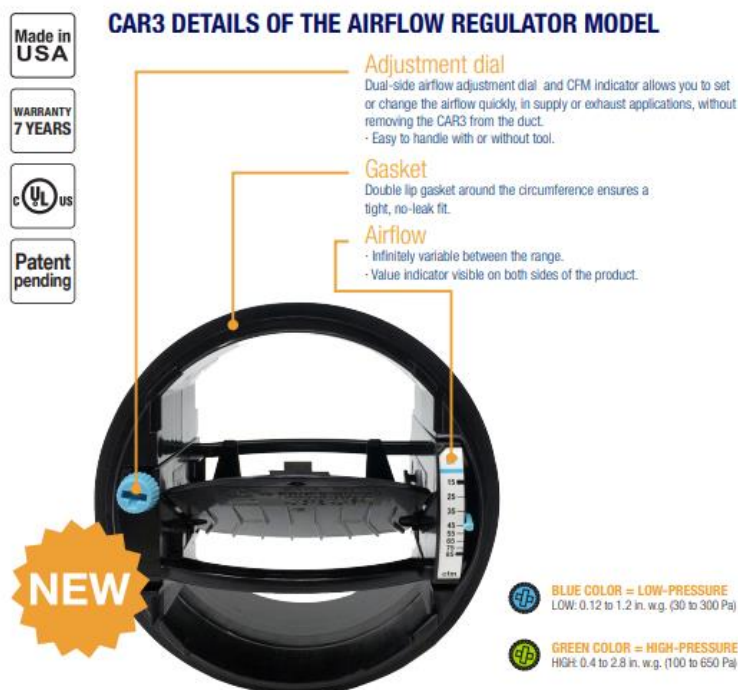


Figure 2: CAR-3 Features

The CAR-3 features a low-pressure and a high-pressure model. The low-pressure model can be used in systems where the static pressure is between 0.12 in. w.g. and 1.2 in. w.g. The high-pressure model can be used in systems from 0.4 - 2.8 in. w.g. To obtain a better visual, check out [Aldes 'next generation precise airflow' video](#)

CAR3-L4-R4	
PARENT MODEL	Constant Airflow Regulator
PRESSURE RANGE	L: Low-Pressure (0.12-1.2 in. w.g.) H: High-Pressure (0.4-2.8 in. w.g.)
AIRFLOW RANGE	Low-Pressure 4: 15-85 CFM (25-144 m ³ /h) 5: 35-180 CFM (59-306 m ³ /h) 6: 45-260 CFM (76-442 m ³ /h) 8: 70-385 CFM (119-655 m ³ /h) High-Pressure 4: 30-160 CFM (51-272 m ³ /h) 5: 55-260 CFM (93-442 m ³ /h) 6: 60-370 CFM (102-629 m ³ /h) 8: 130-630 CFM (220-1070 m ³ /h)
ROUND DUCT SIZE	R4: 4 inch R5: 5 inch R6: 6 inch R8: 8 inch

Figure 3: CAR-3 Airflow Ranges

Fun Fact! In October 2008, the NAHB research center published a case study that showed conclusively how installing ALDES CAR dampers improves airflow balance in multi-story buildings with central exhaust ventilation systems. The study found that the CAR dampers provide considerable cost savings with “over 27% energy savings”. More information on this study can be found on page 11 in the ‘Aldes Brochure’ link below.

For more information on this product, check out [Aldes brochure](#) and [spec & technical data sheet](#). In addition, please feel free to contact our quick assist team at adeengineering@adehvac.com for selections or assistance with any questions.



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