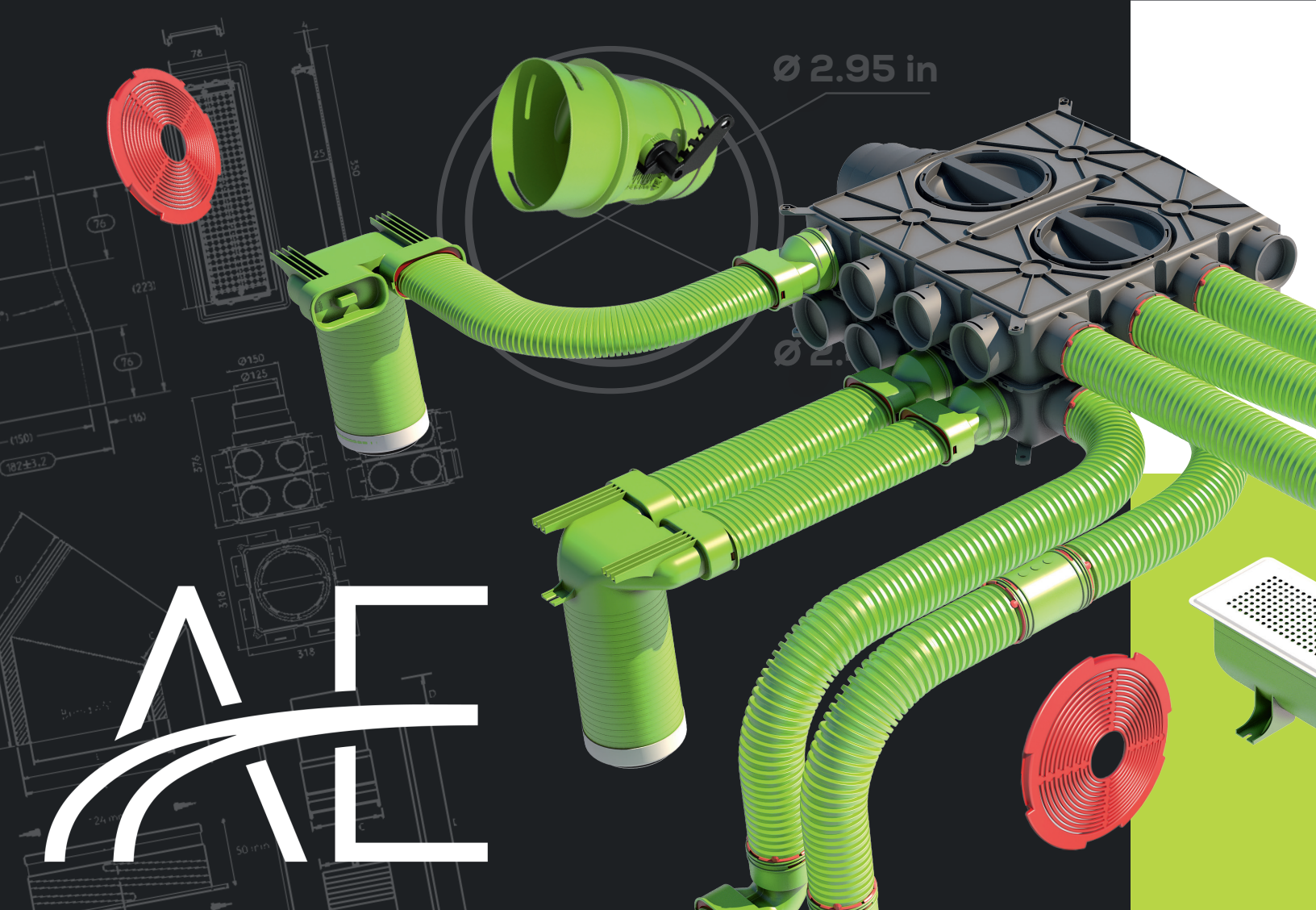


# A BETTER WAY OF MOVING AIR!

Air Excellent



Centrotherm



## What is Air Excellent?

- An engineered polyethylene semi-rigid duct system
- Compatible with any HRV or ERV appliance on the market
- Class D/ATC-2 Airtightness (EN 12237) to  $\pm 8''$  water column

## What It Does?

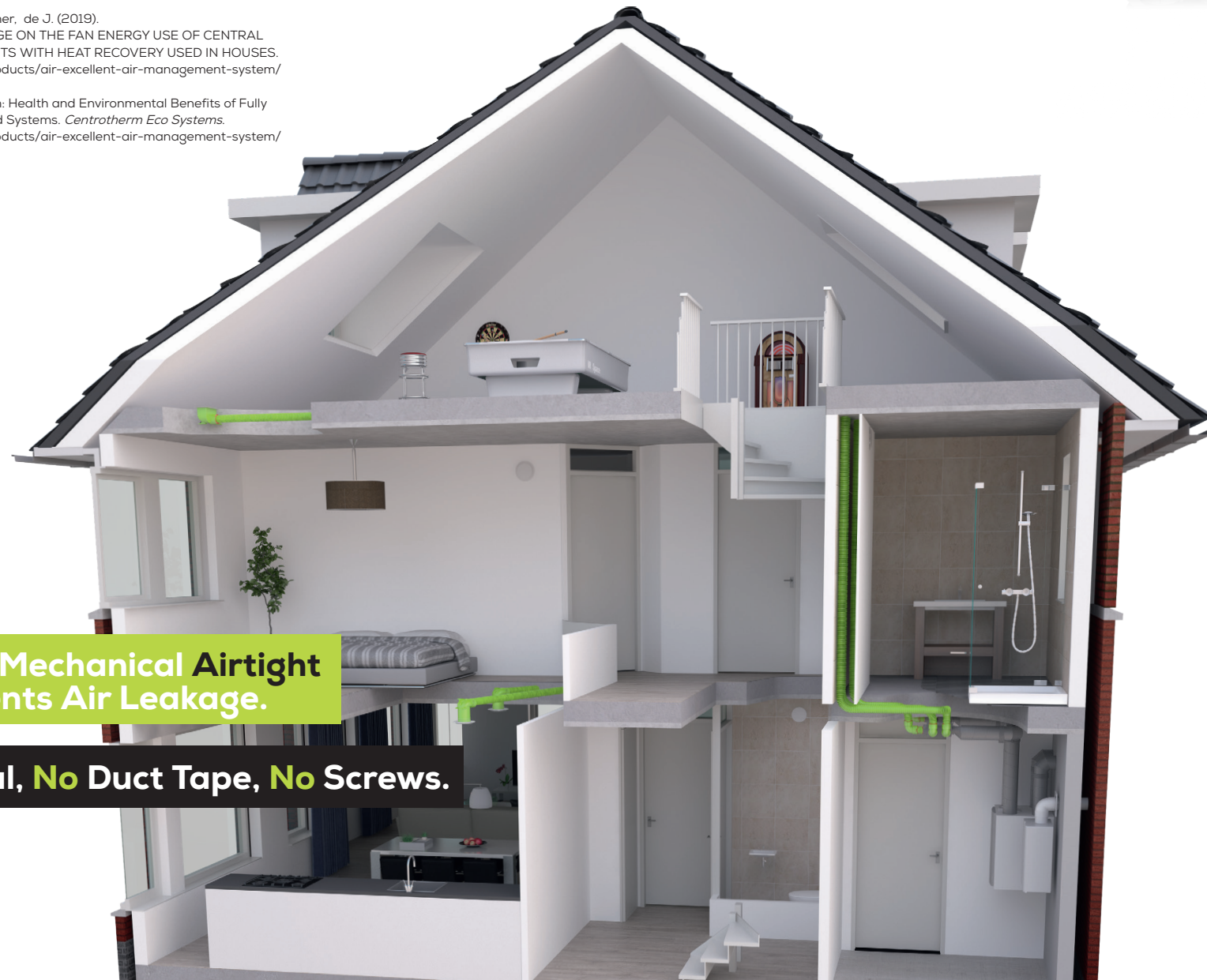
- Ensures balanced air exchanges in the dwelling.
- Improves the energy efficiency of the appliance up to 63% <sup>1</sup>
- Reduces carbon footprint <sup>2</sup>
- Decreases install time up to 30%

## How Air Excellent works?

- Continuous duct runs with mechanical Airtight connections at each end.
- Pre-Engineered with **No Field Commissioning Required.**

1. Leprince, V., Lightfoot, M., & Jelmer, de J. (2019). IMPACT OF DUCTWORK LEAKAGE ON THE FAN ENERGY USE OF CENTRAL MECHANICAL VENTILATION UNITS WITH HEAT RECOVERY USED IN HOUSES. <https://www.centrotherm.ca/products/air-excellent-air-management-system/>

2. Epstein, M. (2021). Air Ventilation: Health and Environmental Benefits of Fully Dedicated vs. Partially Dedicated Systems. *Centrotherm Eco Systems*. <https://www.centrotherm.ca/products/air-excellent-air-management-system/>



**Continuous Mechanical Airtight Ducts Prevents Air Leakage.**

**No Duct Seal, No Duct Tape, No Screws.**

## Full System Configuration

## Precise Delivered CFM

## Completely Balanced System

## No End Commissioning



## Accurate air flow calculations equals the highest air quality.

The **Air Excellent system** works in tandem with an online commissioning tool, which provides detailed information about the system pressure, a full bill of materials, and an exact calculation for the flow restrictor settings per each duct run.

The flow restrictors are an essential part of the **Air Excellent system**.

Their configuration will help precisely supply the correct air flow to each room of the building.

The Air Excellent commissioning tool calculates how to alter the restrictor. The calculation can be amended on-site if the installed system differs from its original design.



## Design Versatility

Ductwork on a roll is easy to lay out, cut to length, and bend around obstacles.

Air Excellent's connections deliver quick, clean, and consistent air-tight seals, making Air Excellent ideal for pre-fabricated construction. The ductwork can be suspended under ceilings and run through interior floors and walls.



## Air Excellent Job Examples

Air Excellent is a product that can be used in both commercial multi-family and residential single-family settings. It is designed to improve air quality and provide a healthier indoor environment. The product's specific features and benefits will vary depending on the application.

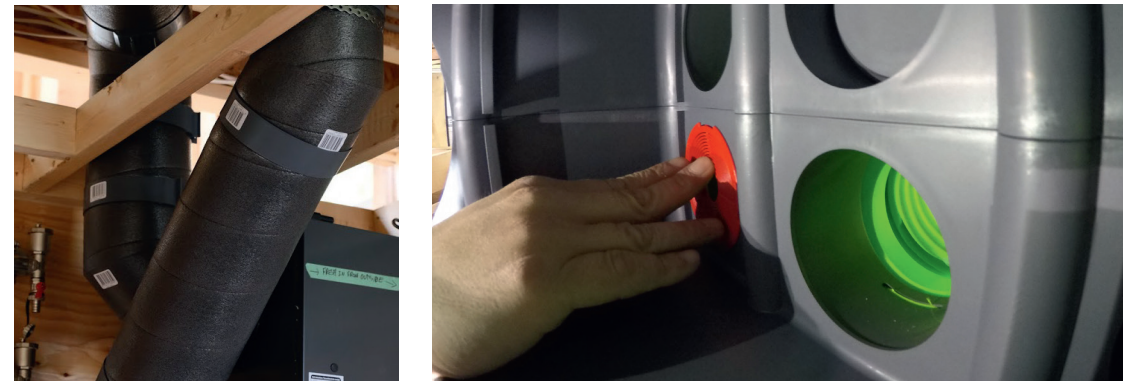
The PDFs contain drawings, bill of materials, extract calculations, and supply calculations.

Please scan the QR codes on the left to view the full Commercial and Residential examples.

### Commercial Multi-Family



### Residential Single Family



## Product Introduction

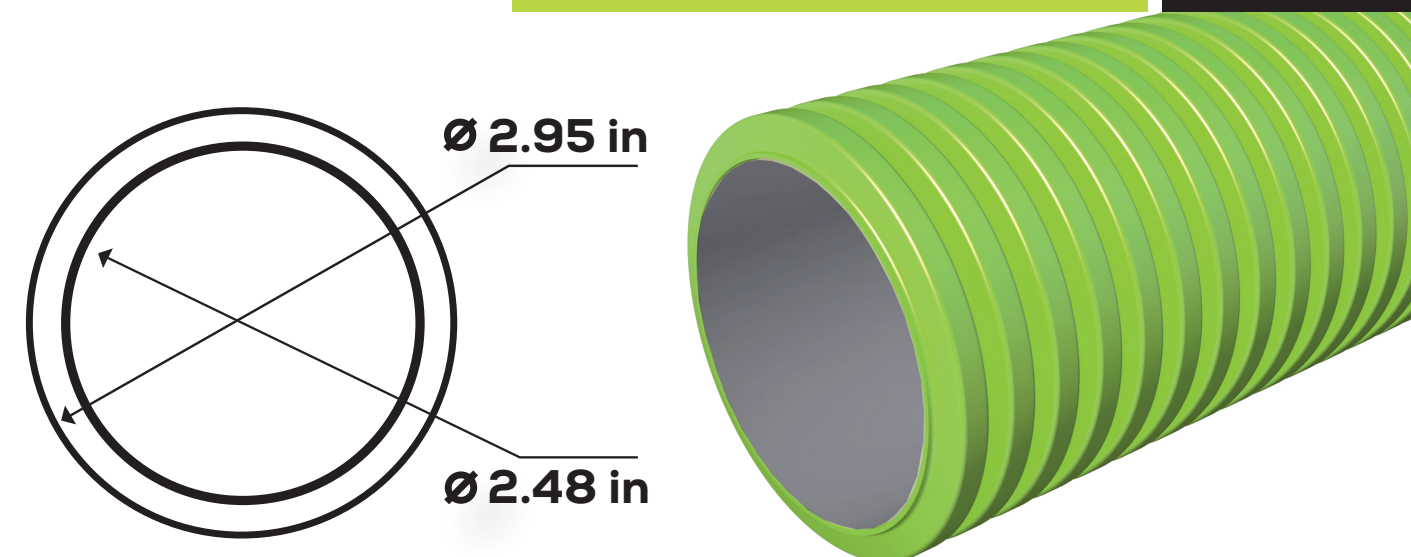
Air Excellent semi-rigid plastic duct 3 in with anti-microbial and anti-static additives.

- Semi-rigid plastic ducts on a roll and airtight mechanical connections, which are extremely easy to install
- Low system pressure loss due to radial design
- Airtight (class D/ATC 2 up +/- 2000 Pa) thanks to mechanical connections, which minimizes fan energy use and sound production

AE34c - Flexible Duct   AESRD34				Dimensions	
				AE34c Circular Ductwork - 3 in	
				Outer Diameter - 3 in (2.95 in)	
				Inner Diameter - 2.5 in (2.48 in)	
				Capacity - [see Air Excellent technical packet]	
				Min. Bend Radius - 5.9 in (5.91 in)	
1x AE34c		2x AE34c			
Volume [CFM]	Volume [m/s]	Volume [CFM]	Volume [m/s]		
10.0	1.5	20.0	1.5		
20.0	3.0	40.0	3.0		

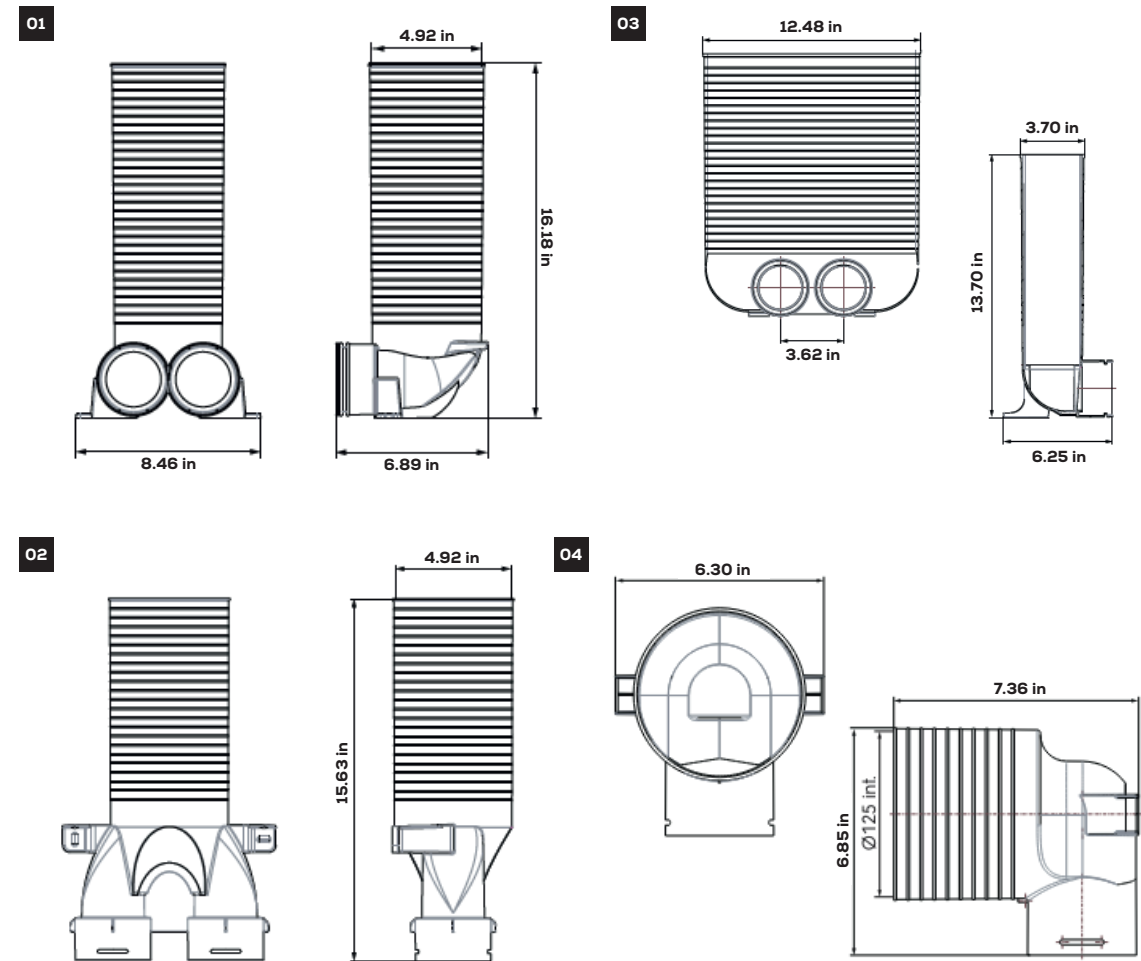
**Airtight (Class D/ATC 2 +/- 2000 Pa)**

**Anti-Microbial & Anti-Static**



## Adaptors: Product Introduction

Seamlessly transition from AE34c Duct to the finishing grille with our portfolio of valve adaptors.



## The 200 Series Distribution Boxes

The system consists of modular box units and adapters that can be merged to function as one system.

200 Series Distribution Boxes come with caps for half of the DBox duct outlet and restrictor rings for every outlet. Allowing for multiple installation configurations.

This distribution system allows for tailor-made solutions for any orientation while preventing incorrectly balanced installations.

Its small dimensions make it ideal for homes that require lower air volumes or buildings that have limited installation space. Installations do not require separate mounting brackets and can be executed by a single person on walls, floors, and ceilings.

## The 800 Series Distribution Box

The DB824 Distribution Box is a universal “one for all” solution for many installations and can be configured with up to 24 ducts. Connections can be installed vertically or horizontally.

Similar to its smaller counterpart. The 800 Series Distribution Boxes come with caps for half of the DBox duct openings and restrictor rings for every opening - more than enough for any installation.

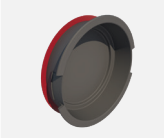
Its larger dimensions make it ideal for buildings that require higher air exchange rates.

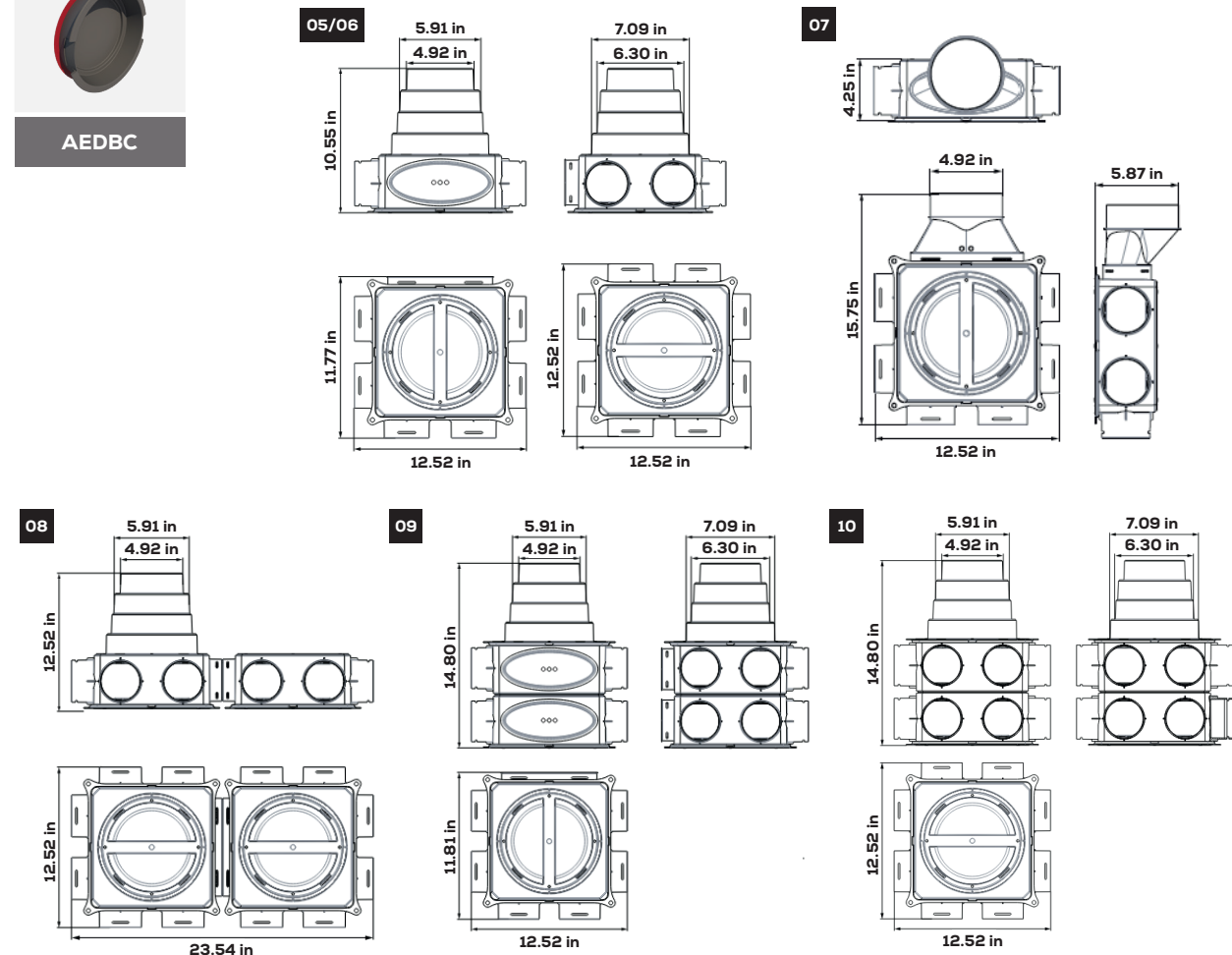
Installations do not require separate mounting brackets and can be executed by a single person on walls, floors and ceilings.

## Air Excellent D-Boxes

Distribution Boxes are the heart of Air Excellent's configurable system. The Air Excellent Pressure Configurator software will precisely define the quantity of duct runs and the arrangement of restrictor plates. Centrotherm's Distribution Boxes are supplied with enough restrictor rings and caps to complete the installation.

<b>DB 206 (6x)</b>	<b>DB 208 (8x)</b>	<b>DB 206 (Inline)</b>	<b>DB 212 (Inline)</b>	<b>DB212 V (12x - Vertical)</b>	<b>DB216 (16x)</b>
					
<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>10</b>
<b>AEDB206V</b>	<b>AEDB208V</b>	<b>AEDB206H</b>	<b>AEDB212H</b>	<b>AEDB212V</b>	<b>AEDB216V</b>

<b>Dust Cap</b>	<b>NOTE: Dust Cap available in cartons of 10</b>
	
<b>AEDBC</b>	

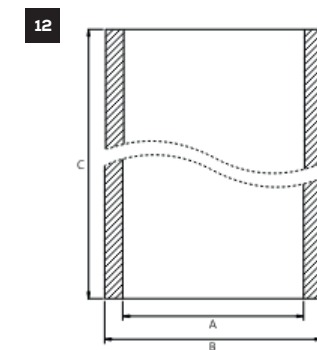
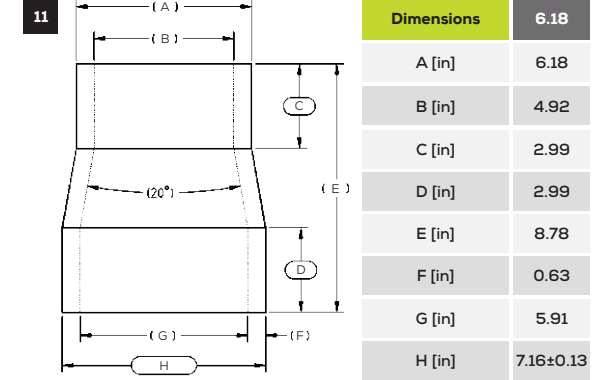


## Mass Flow Duct

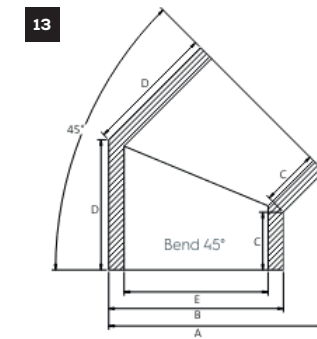
Draw fresh air from the outside, and return stale air to the appliance through easily-assembled Air Excellent mass flow duct. These insulated lightweight lengths and elbows assemble quickly providing a smooth path to and from the appliance.

<b>Mass Flow Adaptor</b>	<b>Vent Length (2m)</b>	<b>45° Bend</b>	<b>90° Bend</b>	<b>Tee</b>
				
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>AEFAD0405 - 4 in</b> <b>AEFAD0605 - 6 in</b> <b>AEFAD0805 - 7 in</b>	<b>AEFD052</b>	<b>AEFEL0545</b>	<b>AEFEL0590</b>	<b>AEFDT05</b>

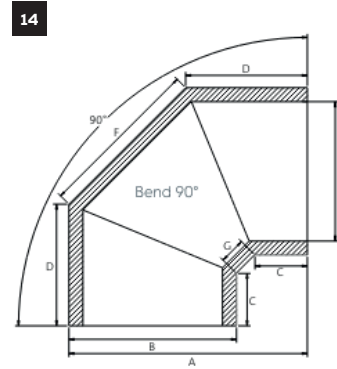
<b>Duct Connector</b>	<b>Bracket</b>
	
<b>16</b>	<b>17</b>
<b>AEFDC05</b>	<b>AEF05WB</b>



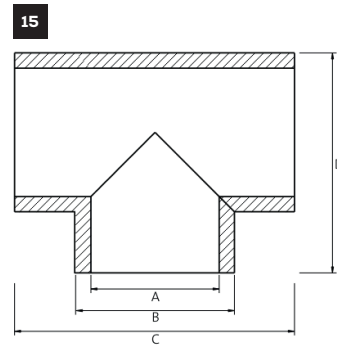
<b>Dimensions</b>	<b>4.92</b>	<b>5.90</b>	<b>6.30</b>	<b>7.09</b>	<b>7.87</b>
A [in]	4.92	5.90	6.30	7.09	7.87
B [in]	6.18	7.16	7.56	8.35	9.13
C [in]	0.079	0.079	0.079	0.079	0.079
Zeta [lbs]	1.06 lbs	1.23 lbs	1.16 lbs	1.48 lbs	1.76 lbs



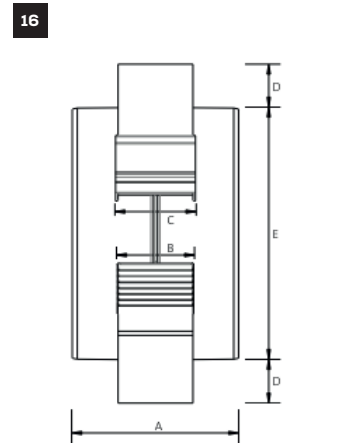
<b>Dimensions</b>	<b>4.92</b>	<b>5.90</b>	<b>6.30</b>	<b>7.09</b>	<b>7.87</b>
A [in]	7.83	8.81	9.25	10.15	10.94
B [in]	6.18	7.16	7.56	8.35	9.13
C [in]	2.36	2.36	2.36	2.56	2.56
D [in]	4.92	5.31	5.39	6.02	6.11
E [in]	4.92	5.90	6.30	7.09	6.34
Zeta [lbs]	1.17 lbs	1.08 lbs	1.01 lbs	0.88 lbs	0.62 lbs



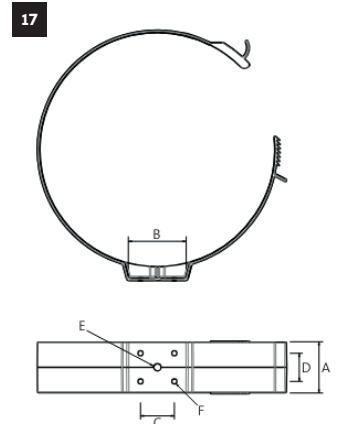
Dimensions	4.92	5.90	6.30	7.09	7.87
A [in]	9.37	10.35	10.79	11.73	12.52
B [in]	6.18	7.16	7.56	8.35	9.13
C [in]	2.36	2.36	2.36	2.56	2.56
D [in]	4.92	5.31	5.39	6.02	6.34
E [in]	4.92	5.90	6.30	7.09	7.87
F [in]	6.26	7.12	7.44	8.11	8.74
G [in]	1.18	1.18	1.18	1.18	1.18
Zeta [lbs]	1.94 lbs	1.87 lbs	1.87 lbs	1.85 lbs	1.15 lbs



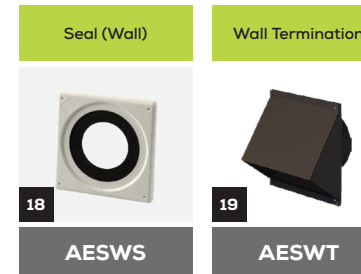
Dimensions	4.92	5.90	6.30	7.09	7.87
A [in]	4.92	-	6.30	-	-
B [in]	6.18	-	7.56	-	-
C [in]	10.87	-	12.44	-	-
D [in]	8.50	-	10.00	-	-



Dimensions	4.92	5.90	6.30	7.09	7.87
A [in]	3.94	3.94	3.94	4.72	4.72
B [in]	1.77	1.77	1.77	1.77	1.77
C [in]	1.89	1.89	1.89	1.89	1.89
D [in]	0.59	0.59	0.59	0.59	0.59
E [in]	4.92	5.90	6.30	7.09	7.87



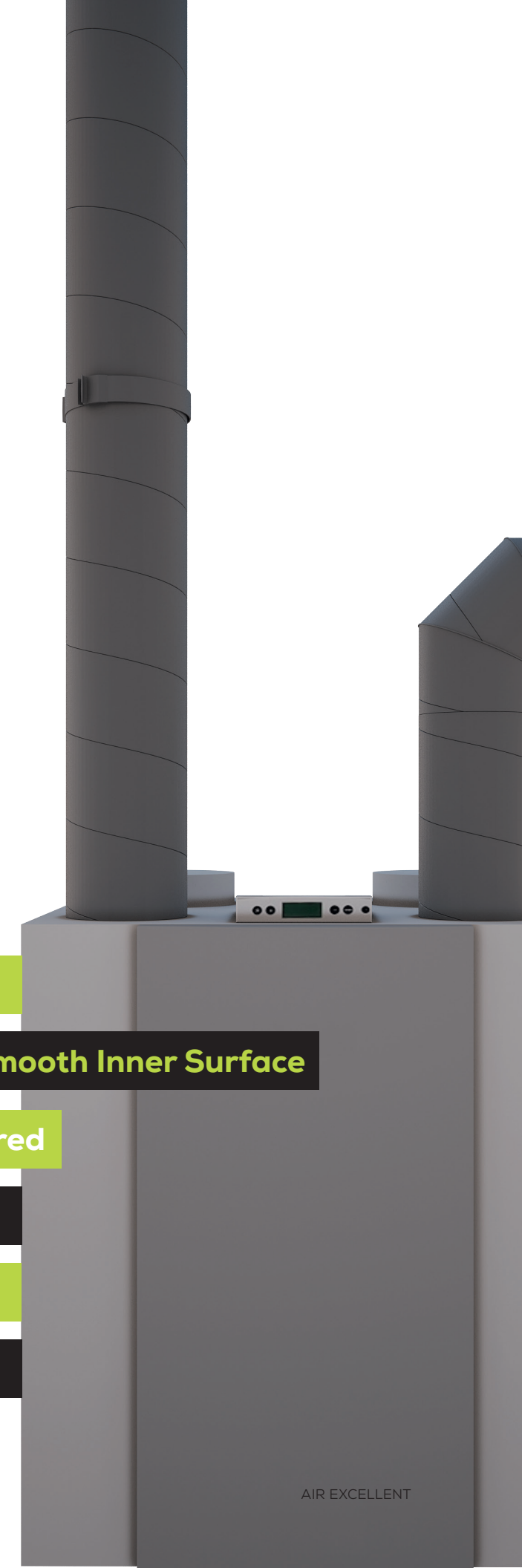
Dimensions	4.92	5.90	6.30	7.09	7.87
A [in]	1.77	1.77	1.77	1.77	0.90
B [in]	1.97	1.97	1.97	1.97	7.87
C [in]	1.18	1.18	1.18	1.18	9.76
D [in]	0.98	0.98	0.98	0.98	8.86
E [in]	M8	M8	M8	M8	M8
F [in]	-	-	-	-	-

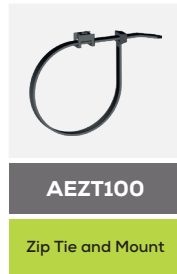


Seal (Wall) 18
Length Gross - (11.02 in)
Width - (11.10 in)
Height - (0.29 in)
Net Weight - (0.37 lbs)

Wall Termination 19
Length Gross - (7.44 in)
Width - (9.17 in)
Height - (9.17 in)
Net Weight - (1.98 lbs)

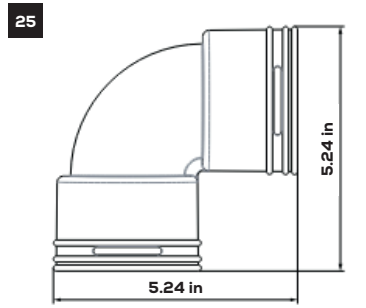
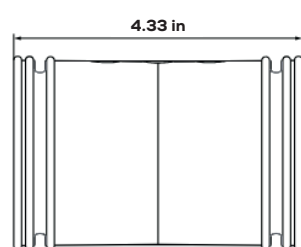
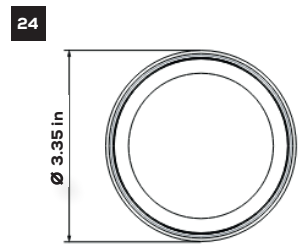
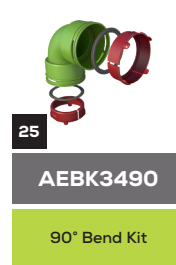
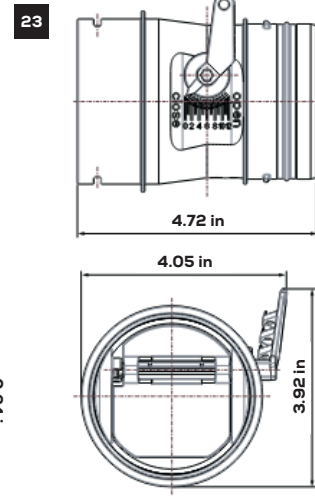
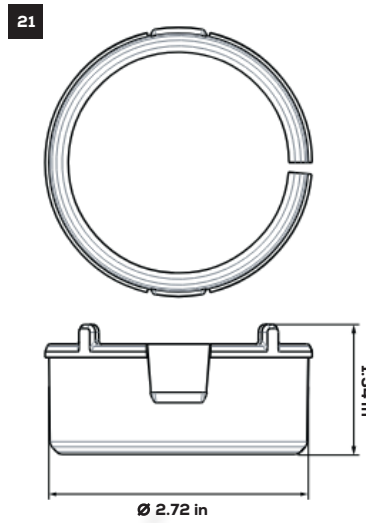
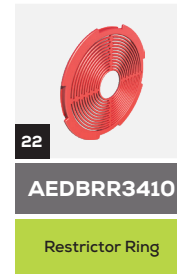
- Well Insulated Duct
- Low Pressure Loss Due to the Smooth Inner Surface
- Easily Constructed and Configured
- Impact Resistant
- Rust Proof
- No Tape or Glue





**NOTE:** Seal and Click Ring available in cartons of 10

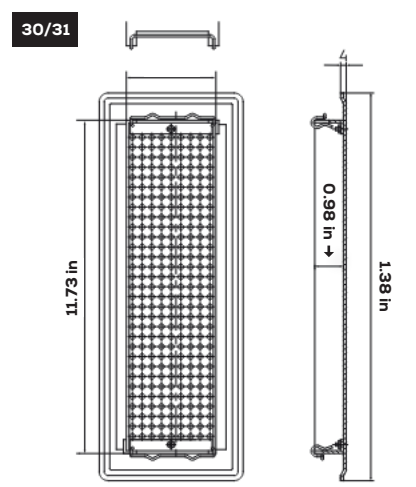
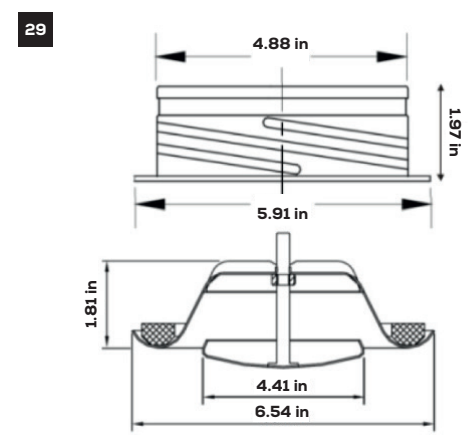
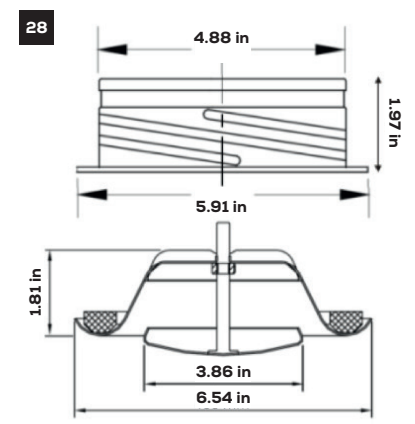
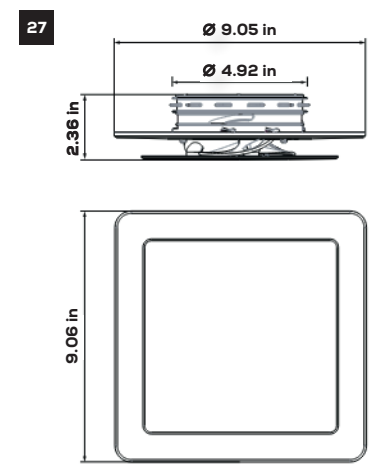
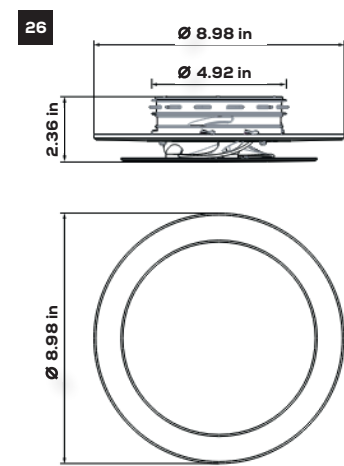
**NOTE:** Zip Tie and Mount available in cartons of 100



**Terminals**



**Grilles**

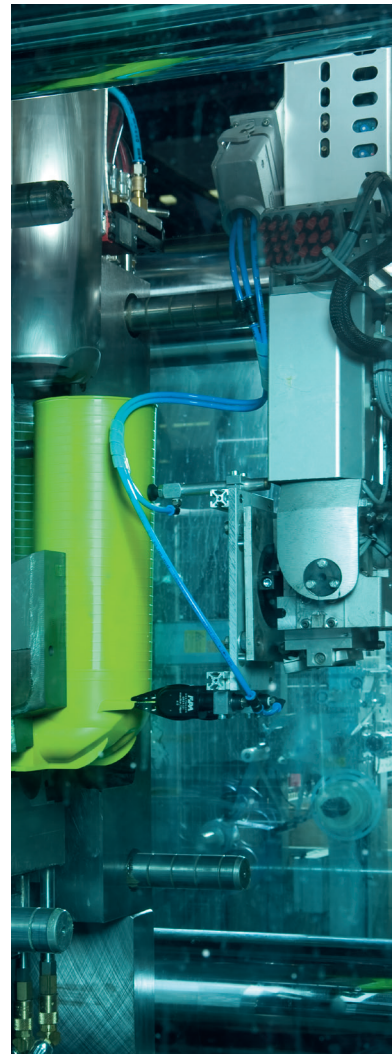




## Materials

The Air Excellent ductwork is made of Polyethylene (PE), which gives the ductwork its characteristic semi-rigid behavior. The accessories, such as the valve adapters, the bends, and the connectors are manufactured of PP to give them stronger rigid properties.

The 2K molded seals belonging to the semi-circular ductwork types include TPE material to warrant flexibility and airtightness. The ductwork source material contains anti-static and anti-bacterial properties. All Air Excellent parts are manufactured using virgin raw materials.



## Warranty

Air Excellent Air Management Systems are backed by our industry leading 10-year limited warranty, providing additional security to all of our customers.

Centrotherm was the first North American polymeric manufacturer to offer such an extensive warranty program.

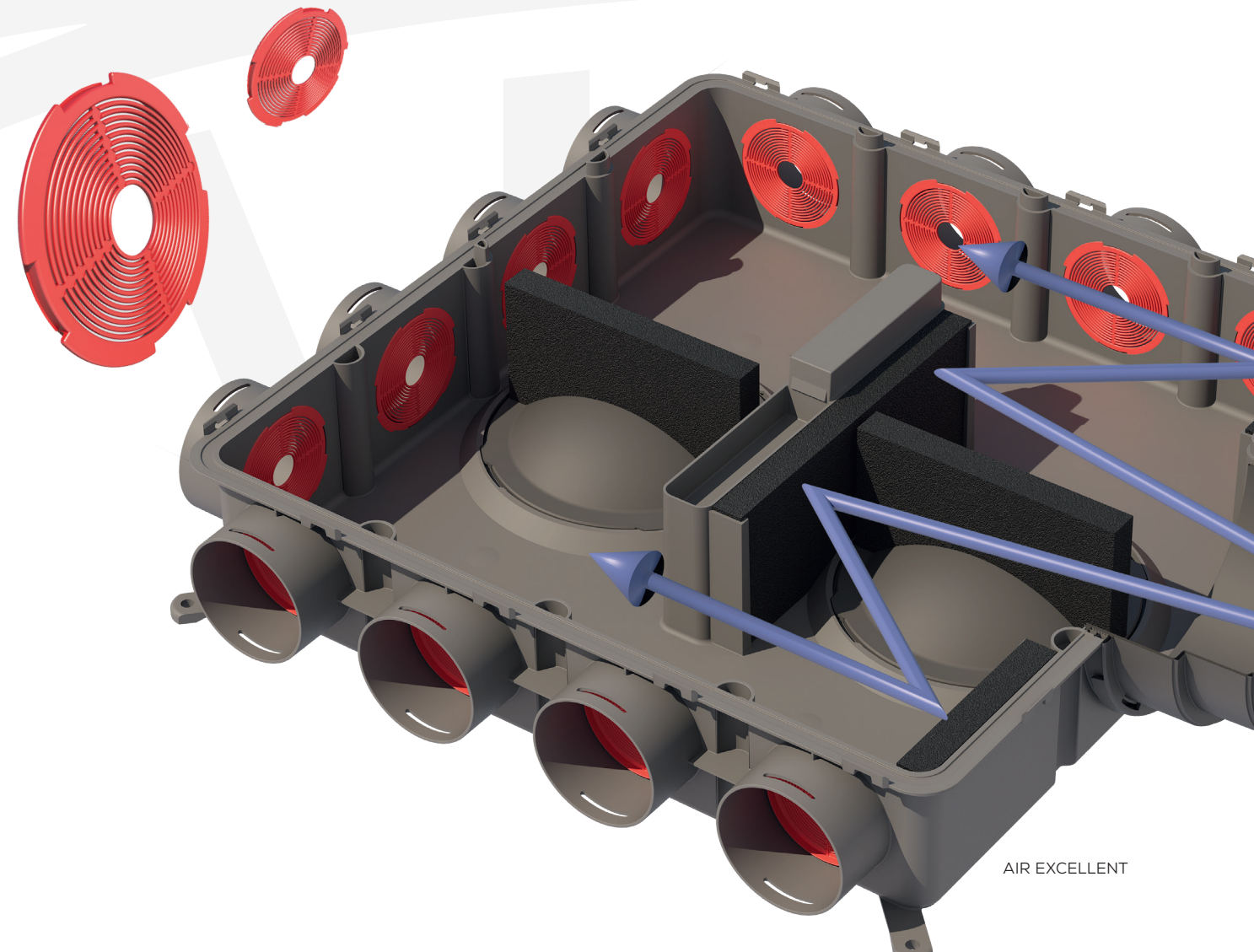
This warranty comes standard with every installation completed by a professional contractor. The warranty provides for material replacement in the case of defective product.

## Reliability

Centrotherm carefully inspects all of our vent lengths and fittings from raw material to finished product. All of our manufacturing facilities are ISO certified to ensure optimum quality is achieved every time.

As an industry leader, Centrotherm is committed to research and development. R&D labs are maintained in Germany, the Netherlands and the United States.

Performance		
Property	Standard	Result
Air Duct Material	National Building Code of Canada • Section 3.6.5. - Air Duct Systems • Section 9.33.6. - Air Duct and Plenum Systems	Compliant
Working Pressure	TÜV SÜD/TAK 01-2013	- 2000 Pa to + 2000 Pa (8 in WC)
Air Tightness	EN 12237 TÜV SÜD/TAK 01-2013	Class D
Pressure Loss	TÜV SÜD/TAK 01-2013	See AE Tech Data Sheets
Microbial Resistance	ISO 22196	Eliminated 99.99% of bacteria after 72 hours
Temperature Range	TÜV SÜD/TAK 01-2013	-20°C - 60°C (-4°F - 140°F)
Flexibility	TÜV SÜD/TAK 01-2013	Bendable without tools
Bending Stiffness	TÜV SÜD/TAK 01-2013	2 meters between supports
Anti-Static Properties	TÜV SÜD/TAK 01-2013	Resistant to static





AEPC2024  
08v12



**NORTH AMERICA**

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