

Compressed Air Quality

Class 0 Oil-Free Air for Food and Beverage Applications



The freedom of oil-free

How pure is your air?

In 2001, the International Standards Organization (ISO) established a new class of air quality for automotive manufacturers with the highest standards. The standards were updated in 2010. Class 0 is the most stringent air quality class, limiting oil contamination in liquid, aerosol and vapor forms.

ISO 8573-1:2010 Air Quality Classes

Quality Class	Solids			Water		Oil & Oil Vapor
	Max Number of Particles per m ³			Pressure Dew Point		mg/m ³
	0.1-0.5 micron	0.5-1 micron	1-5 micron	°F	°C	
0	As specified by the end-user or manufacturer, and more stringent than Class 1					
1	≤ 20,000	≤ 400	≤ 10	-100	-70	0.01
2	≤ 400,000	≤ 6,000	≤ 100	-40	-40	0.1
3	—	≤ 90,000	≤ 1,000	-4	-20	1
4	—	—	≤ 10,000	37.4	3	5
5	—	—	≤ 100,000	44.6	7	—
6	—	—	—	50	10	—



Ingersoll Rand is committed to providing 100% oil-free air.

All Ingersoll Rand oil-free technologies have earned Class 0 certification through rigorous testing by TÜV Rheinland®, a global leader in independent testing and assessment. With Ingersoll Rand, you can enjoy the peace of mind that comes with knowing your compressed air is completely free of compressor-created contaminants.

How does compressed air quality affect your production lines?



Product Transportation and Storage

Compressed air pushes foodstuffs, such as powders and cereal, through pipes. Class 0 100% oil-free air ensures higher product purity and eliminates the risk of oil mixing with and contaminating the end product.



Packaging, Filling and Capping

Compressed air often has direct contact with the product during these processes. Class 0 100% oil-free air prevents oil contamination from contacting the product in such cases and is a necessity for aseptic packaging environments.



Cooling, Spraying and Cleaning

Compressed air is used to cool down baked goods, spray down produce and clean bottles and pipes. Class 0 100% oil-free air prevents compressor-created contaminants from affecting food quality and avoids potential health hazards.



Fermentation and Aeration

Compressed air supplies oxygen to bacteria for fermentation processes and is pumped into liquids to raise their oxygen content. Class 0 100% oil-free air ensures oil contamination does not kill bacteria and/or fauna living in oxygenated waters, like fish.

Consumer confidence in food safety

With the recent rise in food product recalls, food safety concerns are becoming a growing influence on consumer shopping behavior. In fact, the Food Marketing Institute found that such concerns prompted 38% of consumers to stop purchasing certain foods in 2007, up from 9% in 2006.* While the majority of consumers acknowledge that they have some level of responsibility for ensuring the products they consume are safe, a growing number of consumers (45%) ultimately hold manufacturers accountable.*

Ingersoll Rand Class 0 100% oil-free compressed air technologies help food and beverage manufacturers deliver the high quality products their consumers expect. By ensuring end products are free of compressor-created contaminants, Ingersoll Rand Class 0 air helps food and beverage manufacturers regain and maintain consumer confidence in food safety.



*Source: U.S. Grocery Shopper Trends. Food Marketing Institute. 2007.