

Compressed Air Quality

Class 0 Oil-Free Air for Utility 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 oil and gas companies 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?



Nitrogen Generation and Buffer Air

Separated with membrane technology, compressed air provides the nitrogen blankets needed in LNG tankers and transfer stations. Class 0 100% oil-free air assures longer membrane service life, avoiding costly replacements and potential shutdowns.



Process Operation

Compressed air is used in gasoline sweetening, sour-water oxidation, catalyst regeneration and sulphur removal. Class 0 100% oil-free air maintains product purity of the end product in such process applications.



First-Generation Drives and Controls

Compressed air powers first-generation drives and actuates control valves. Class 0 100% oil-free air promotes trouble-free operation of older equipment and prevents oil contamination from damaging responsive controls.



Calibration and Test Equipment

Compressed air is often used to calibrate instrument and safety valve test benches and liquid/gas analyzers. Class 0 100% oil-free air ensures the continued accuracy and precision of such equipment.

Safety in hazardous environments

Safety is a critical concern for oil and gas companies. These companies must take extreme precautions to maintain safe areas within hazardous environments and ensure employee safety. Purging is a common protection method used in the industry because it offers great flexibility in regards to instrumentation installation in hazardous areas.

Even a slight trace of oil contamination in the compressed air used to purge EEx p control panels can create a flammable situation or lead to a platform shutdown and evacuation. Ingersoll Rand Class 0 100% oil-free compressed air technologies help oil and gas companies maximize safety and productivity by eliminating these risks.

