Compressed Air Alliance
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Sample Report

ISO 8573-1:2010 Compressed Air Quality Test

Bob's Pet Food, 1 Some Street, Any Town

Executive Summary

Compressed Air Alliance conducted compressed air purity testing at 4 locations in Bob's Pet Food on 24th February 2020.

Air Purity Result

Location	Air Purity Result	Microbial Result
Compressor Room	ISO 8573-1:2010 [1:3:1]	Not required
Wet Food Processing	ISO 8573-1:2010 [1:3:1]	Not required
Dry Food Processing	ISO 8573-1:2010 [1:2:1]	Not required
Mixing Plant	ISO 8573-1:2010 [1:4:2]	Not required

NC = Not Classifiable due to excessive contamination

Observations & Comments

Bob's Pet Food has an established compressed air purity standard of:

- ISO8573-1:2010 [2.2.1] for direct contact food grade applications
- ISO8573-1:2010 [2.4.1] for any other purpose in manufacturing operations

As this site produces pet food products the system was testing in accordance with the higher standard.

Of the three food processing areas, only the Dry Food Processing area achieved the required air purity standard. It is recommended that:

- the carbon beds should be renewed in the coming months
- all compressed air equipment should be serviced and maintained to a high degree (I.e. change filters and desiccant at regular intervals)
- clean up the compressor room to prevent contaminants entering the compressor

Sample Report

Air Purity Test Locations and Results

The air purity classification given in ISO 8573-1:2010 is intended to provide a guide to the air purity expected in compressed air systems. ISO 8573-1:2010 lists the main contaminants as Solid Particles, Water and Oil.

The table below shows the results of air purity testing for each location. Results are compared to ISO8573-1:2010's purity levels (refer to the Appendix) to give a purity class rating for each contaminant type, as well as an overall air quality result.

	Location 1: Compressor Room	**Location 2:** Wet Food Processing	**Location 3:** Dry Food Processing	**Location 4:** Mixing Plant
Date of Testing	**24th Feb 2020**	**24th Feb 2020**	**24th Feb 2020**	**24th Feb 2020**
Solid Particles				
0.1µm > 0.5µm	353	1059	0	353
0.5µm > 1.0µm	0	0	0	1
1.0µm > 5.0µm	0	0	0	0
Particles Purity Class	**1**	**1**	**1**	**1**
Water				
Water / Moisture PDP °Ctd	-27.3	-20.7	-45	3.1
Water Purity Class	**3**	**3**	**2**	**4**
Oil				
Oil concentration Mg/m³	0.009	0.005	0.003	0.02
Oil Purity Class	**1**	**1**	**1**	**2**
Overall Air Quality Class	**ISO 8573-1:2010 [1:3:1]**	**ISO 8573-1:2010 [1:3:1]**	**ISO 8573-1:2010 [1:2:1]**	**ISO 8573-1:2010 [1:4:2]**

Sample Report

Appendix

The table below is an ISO8573-1:2010 extract of purity levels for solid particles, water and oil. This information is provided for reference only, a complete copy of ISO8573-1:2010 can be purchased from www.saiglobal.com

Purity Class	Solid Particulate					Water		Oil
	Maximum No of particles per m³			Particle	Concentration	Vapour	Liquid	Total oil
	0.1µm > 0.5µm	> 1.0µm	> 5.0µm	µm	mg/m³	PDP °C	g/m³	Mg/m³
0	As specified by the equipment user or supplier and more stringent than class 1							
1	≤20,000	≤400	≤10	-	-	≤ - 70	-	≤0.01
2	≤400,000	≤6,000	≤100	-	-	≤ - 40	-	≤0.1
3	-	≤90,000	≤1,000	-	-	≤ - 20	-	≤1
4	-	-	≤10,000	-	-	≤ + 3	-	≤5
5	-	-	≤100,000	-	-	≤ + 7	-	-
6	-	-	-	5	≤5	≤ + 10	-	-
7	-	-	-	40	≤10	-	≤0.5	-
8	-	-	-	-	-	-	≤5	-
9	-	-	-	-	-	-	≤10	-
X	-	-	-	-	≥10	-	≥10	≥5

Where a purity class for a contaminant is not specified by ISO8573-1:2010, the designation will be shown with a hyphen (-).

About Compressed Air Alliance

Compressed Air Alliance are experts in the compressed air industry. We work with manufacturers to reduce compressed air demand and improve the efficiency and reliability of compressed air systems.

We offer leakage surveys, auditing, purity testing, consulting, training, system upgrades, monitoring and repairs of compressed air systems. We also provide temporary and permanent measurement, system controls and monitoring equipment.

For more information on Compressed Air Alliance, please see our website: www.compressedairalliance.com or email sales@compressedairalliance.com.