

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX ST-NE
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 13:25

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: BAM-1020
 Serial Number: P21275

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	13:26:05		Certification Expiration: 01/21/15	
Reference Time:	13:26:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.65	0.3%	-0.1%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	6.0	5.8	0.2
	6.0	5.8	0.2
	6.0	5.8	0.2

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	737.0	737.0	0.0
	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX ST-SE
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 13:00

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: BAM-1020
 Serial Number: P22904

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	Serial Number: 1377
Clock/Timer Verification ² :			Certification Expiration: 01/21/15	
BAM-1020 :	13:10:00			
Reference Time:	13:10:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.85	-0.9%	1.1%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	5.0	5.9	-0.9
	5.0	5.9	-0.9
	5.0	5.9	-0.9

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	737.0	737.0	0.0
	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

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**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX ST-SW
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 12:50

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: BAM-1020
 Serial Number: P22809

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	Serial Number: 1377
Clock/Timer Verification ² :			Certification Expiration: 01/21/15	
BAM-1020 :	12:56:50			
Reference Time:	12:57:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.91	-1.2%	1.4%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	6.1	6.5	-0.4
	6.1	6.5	-0.4
	6.1	6.5	-0.4

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	737.0	737.0	0.0
	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX ST-N
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 12:00

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: BAM-1020
 Serial Number: P22906

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	12:01:40		Certification Expiration: 01/21/15	
Reference Time:	12:01:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.84	-0.8%	1.0%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	5.8	7.4	-1.6
	5.8	7.4	-1.6
	5.8	7.4	-1.6

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	737.0	737.0	0.0
	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX ST-NW
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 12:10

CLIENT: Koch
SAMPLER ID: BAM-1020
Model Number: BAM-1020
Serial Number: P22808

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	Serial Number: 1377
Clock/Timer Verification ² :			Certification Expiration: 01/21/15	
BAM-1020 :	12:14:45			
Reference Time:	12:15:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.87	-1.0%	1.2%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
Model Number: deltaCal			
Serial Number: 1377	5.8	6.5	-0.7
Certification Expiration: 01/21/15	5.8	6.5	-0.7
	5.8	6.5	-0.7

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
Model Number: deltaCal			
Serial Number: 1377	737.0	737.0	0.0
Certification Expiration: 01/21/15	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

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**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX NT-SE
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 10:30

CLIENT: Koch
 SAMPLER ID: BAM
 Model Number: BAM-1020
 Serial Number: M4791

0.3				
Leak Check ¹ : <input type="text" value="0.3"/> LPM	Flow Rate Calibration Device: BGI			
1. Acceptance Criteria: < 0.5 LPM		Model Number: deltaCal		
Clock/Timer Verification ² :	Serial Number: 1377			
BAM-1020 : <input type="text" value="15:23:15"/>	Certification Expiration: 01/21/15			
Reference Time: <input type="text" value="15:23:00"/>				
2. Acceptance Criteria: within 60 sec. of Reference Time				
Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)	
16.70	16.45	1.5%	-1.3%	

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	4.6	3.5	1.1
	4.6	3.5	1.1
	4.6	3.5	1.1

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	738.0	738.0	0.0
	738.0	738.0	0.0
	738.0	738.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX NT-SW
AQS Site Code: N/A
DATE: 11-Mar-14
TIME: 11:05

CLIENT: Koch
SAMPLER ID: BAM-1020
Model Number: 1020
Serial Number: M4793

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.2	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	11:13:21		Certification Expiration: 01/21/15	
Reference Time:	11:13:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.54	1.0%	-0.8%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	9.1	8.3	0.8
	9.1	8.3	0.8
	9.1	8.3	0.8

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	737.0	737.0	0.0
	737.0	737.0	0.0
	737.0	737.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

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**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX NT-NE
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 10:20

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: 1020
 Serial Number: P21274

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.3	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	10:23:25		Certification Expiration: 01/21/15	
Reference Time:	10:23:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.40	16.26	0.9%	-2.5%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	9.2	9.3	-0.1
	9.2	9.3	-0.1
	9.2	9.3	-0.1

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	740.0	738.0	2.0
	740.0	738.0	2.0
	740.0	738.0	2.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

**BAM-1020 PARTICULATE MATTER (PM) MONITOR
Calibration Data**

SITE NAME: KCBX NT-NW
 AQS Site Code: N/A
 DATE: 11-Mar-14
 TIME: 11:30

CLIENT: Koch
 SAMPLER ID: BAM-1020
 Model Number: 1020
 Serial Number: M4792

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.3	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	Serial Number: 1377
Clock/Timer Verification ² :			Certification Expiration: 01/21/15	
BAM-1020 :	11:35:15			
Reference Time:	11:35:00			
2. Acceptance Criteria: within 60 sec. of Reference Time				
	Sampler Indicated Flow Rate (LPM)	Calibration Flow Rate (Qa) (LPM)	Percent Difference ³ (Sampler vs. Calibration)	Percent Difference ⁴ (Calibration vs. Design)
	16.70	16.70	0.0%	0.2%

The BAM-1020 operates using actual flow rates, and converts to standard conditions in the onboard data file

3. Acceptance Criteria: ± 4.0%

4. Acceptance Criteria: ± 5.0%

TEMPERATURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Temperature (T _s) (°C)	Calibration Sensor Temperature (T _a) (°C)	Temperature Difference ⁵ (Sampler - Calibration) (°C)
	7.6	8.8	-1.2
	7.6	8.8	-1.2
	7.6	8.8	-1.2

5. Acceptance Criteria: ± 2.0 °C

PRESSURE Calibration Data			
Calibration Device: BGI Model Number: deltaCal Serial Number: 1377 Certification Expiration: 01/21/15	Sampler Sensor Pressure (P _s) (mm Hg)	Calibration Sensor Pressure (P _a) (mm Hg)	Pressure Difference ⁶ (Sampler - Calibration) (mm Hg)
	738.0	737.0	1.0
	738.0	737.0	1.0
	738.0	737.0	1.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik