

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

SITE NAME: KCBX ST-NE
 AQS Site Code: N/A
 DATE: 17-Mar-14
 TIME: 15:30

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

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.4	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 :	15:30:30			
Reference Time:	15:31:00			
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	16.75	-0.3%	0.5%

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)
	5.2	4.5	0.7
	5.2	4.5	0.7
	5.2	4.5	0.7

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)
	741.0	740.0	1.0
	741.0	740.0	1.0
	741.0	740.0	1.0

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: 17-Mar-14
TIME: 16:40

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	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	16:41:43		Certification Expiration: 01/21/15	
Reference Time:	16:42:00			
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)
	3.4	4.5	-1.1
	3.4	4.5	-1.1
	3.4	4.5	-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)
	740.0	741.0	-1.0
	740.0	741.0	-1.0
	740.0	741.0	-1.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

URS
Rev. 3 3/2014

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

SITE NAME: KCBX ST-SW
 AQS Site Code: N/A
 DATE: 17-Mar-14
 TIME: 16:05

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	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	16:06:45		Certification Expiration: 01/21/15	
Reference Time:	16:06:00			
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	17.00	-1.8%	2.0%

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)
	3.2	4.0	-0.8
	3.2	4.0	-0.8
	3.2	4.0	-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)
	740.0	741.0	-1.0
	740.0	741.0	-1.0
	740.0	741.0	-1.0

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: 17-Mar-14
 TIME: 15:15

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

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 :	13:22:21		Certification Expiration: 01/21/15	
Reference Time:	13:23:00			
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	17.01	-1.8%	2.0%

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)
	1.6	3.0	-1.4
	1.6	3.0	-1.4
	1.6	3.0	-1.4

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)
	742.0	742.0	0.0
	742.0	742.0	0.0
	742.0	742.0	0.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik

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 Rev. 3 3/2014

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

SITE NAME: KCBX ST-NW
AQS Site Code: N/A
DATE: 17-Mar-14
TIME: 13:35

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

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 :	13:38:28		Certification Expiration: 01/21/15	
Reference Time:	13:39:00			
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	16.99	-1.7%	1.9%

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	0.4	1.2	-0.8
Certification Expiration: 01/21/15	0.4	1.2	-0.8
	0.4	1.2	-0.8

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	742.0	742.0	0.0
Certification Expiration: 01/21/15	742.0	742.0	0.0
	742.0	742.0	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: 17-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="10:31:32"/>	Certification Expiration: 01/21/15			
Reference Time: <input type="text" value="10:32:00"/>				
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	16.50	1.2%	-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)
	-2.0	-2.5	0.5
	-2.0	-2.5	0.5
	-2.0	-2.5	0.5

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)
	744.0	743.0	1.0
	744.0	743.0	1.0
	744.0	743.0	1.0

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: 17-Mar-14
 TIME: 10:25

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

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.1	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	10:28:15		Certification Expiration: 01/21/15	
Reference Time:	10:28:00			
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	16.66	0.2%	-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)
	-3.2	-2.9	-0.3
	-3.2	-2.9	-0.3
	-3.2	-2.9	-0.3

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)
	744.0	744.0	0.0
	744.0	744.0	0.0
	744.0	744.0	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-NE
 AQS Site Code: N/A
 DATE: 17-Mar-14
 TIME: 10:50

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

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 :	10:54:41		Certification Expiration: 01/21/15	
Reference Time:	10:55:00			
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	16.61	-1.3%	-0.4%

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)
	-1.0	-1.5	0.5
	-1.0	-1.5	0.5
	-1.0	-1.5	0.5

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)
	743.0	744.0	-1.0
	743.0	744.0	-1.0
	743.0	744.0	-1.0

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: 17-Mar-14
 TIME: 10:00

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

FLOW RATE AND LEAK CHECK Calibration Data				
Leak Check ¹ :	0.4	LPM	Flow Rate Calibration Device: BGI	
1. Acceptance Criteria: < 0.5 LPM			Model Number: deltaCal	
Clock/Timer Verification ² :			Serial Number: 1377	
BAM-1020 :	10:01:15		Certification Expiration: 01/21/15	
Reference Time:	10:02:00			
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	16.69	0.1%	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)
	-2.5	-2.4	-0.1
	-2.5	-2.4	-0.1
	-2.5	-2.4	-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)
	744.0	745.0	-1.0
	744.0	745.0	-1.0
	744.0	745.0	-1.0

6. Acceptance Criteria: ± 10.0 mm Hg

Calibration Tech: Greg Mazik