

Application Questionnaire for Continuous Emission Monitoring (CEM) Systems (IMR400 and IMR5000)

This document must be filled out as completely as possible to allow our engineering department to choose the best installation hardware for your particular requirements.

Writer's name: _____ Date: _____

1) Customer Information

Company:

Name:

Title:

Address:

Tel: _____ Fax: _____

2) Application

Location:

Name of Facility / Plant:

Producing Area:

Fuel:

Calculated Results:

Type of Process:

3) Instrument Details

Instrument supply voltage:

- 230 V/50 Hz
- 115 V/60 Hz
- Other: _____ V/ _____ Hz
- 1-Phase
- 2-Phase

Purge air fan (if required):

- 115/230 V | 50/60 Hz
- 3-Phase 230/400 @50 Hz, 245/430@60 Hz
- Other: _____ V/ _____ Hz
- 1-Phase
- 3-Phase

4) Location

Distance between sampling point and analyzer: _____ m

Requested length of Sample Probe: _____ m

Location of analyzer:

- Indoor
- Outdoor

5) Measured Components

- Dust concentration
 - ❖ Measuring range of 0 to _____ mg/m³
 - ❖ Max emission value of _____ mg/m³ acc. to regulations
- Opacity
 - ❖ Measuring range of 0 to _____ % opacity

6) Measured Gas

- Gas velocity
 - ❖ Measuring range of 0 to _____ m/s
- Temperature sensor required
- Pressure sensor for calculation of standard flow Nm³/h required

Delta Transducer

- Mounted on probe
- Hose connection
 - Counter Support
 - Yes
 - NO

7) Plant Conditions

Type of filters installed upstream of the sample point

- Electrostatic precipitator ESP
- Bag house
- Wet scrubber
- Other: _____

Area Classification

- Non-Ex
- Zone: _____ Class: _____ Division: _____

Occurrences of temperatures below dew point

- None
- Weekly
- Daily

8) Standard Plant Conditions

	Min	Avg	Max	Unit	
Ambient temperature				C	
Stack gas temperature				C	
Stack gas pressure				hPa	Mm H2O
Water in stack gas				Vol. %	g/m ³
Water dew point				C	
Acid dew point				C	
Stack gas velocity				m/s	
Stack gas volume				m ³ /h	Nm ³ /h
Stack gas quantity				mg/m ³	ppm
Standard gas density				mg/m ³	ppm
Dust				um	
Particle size				mg/m ³	ppm
O ₂				%	
CO				mg/m ³	ppm
NO				mg/m ³	ppm
NO ₂				mg/m ³	ppm
SO ₂				mg/m ³	ppm
H ₂ S				mg/m ³	ppm
HC				mg/m ³	ppm
NH ₃				mg/m ³	ppm
Cl ₂				mg/m ³	ppm
CH ₄				mg/m ³	ppm
CO ₂				mg/m ³	ppm
H ₂				mg/m ³	ppm
O ₃				mg/m ³	ppm
Other				mg/m ³	ppm

9) Data Reporting

- Display
- Printer
- RS232
- 4-20 mA
- 0-10V

10) Notes\Comments:

11) Mounting Location: Indoor Outdoor Weather protection cover required

Stack/duct orientation: Horizontal Vertical

Stack\duct Material

Carbon (mild) steel

Stainless steel

Brick

Concrete

FRP

Other: _____

Internal lining\material

No lining

Stack\duct shape

Circular

Rectangular

Internal stack\duct diameter or width

_____ mm

Depth: _____ mm

Stack wall thickness

_____ mm

External diameter

_____ mm

Insulation thickness

_____ mm

Double walled stack

Yes No

Space between walls

_____ mm

Undisturbed outlet section

$\geq 3 \times ID$

Other: _____ mm

Undisturbed inlet section

$\geq 3 \times ID$

Other: _____ mm

Flange already available

Yes NO

Required flange material

Carbon (mild) steel ST37 (1.0037)

Stainless steel V4A (1.4571/SS316Ti)

Other: _____

Platform required

Yes No

**Height of the stack is 10m.*