



# Optical Scientific Inc. OFS Application Profile Form

Company: \_\_\_\_\_ Plant City/State: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Altern. Contact: \_\_\_\_\_  
 Contact Email: \_\_\_\_\_ Alternate Tel: \_\_\_\_\_  
 Contact Phone: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: The following information is required to evaluate your specific application. Please be as specific and accurate as possible, and if needed, feel free to attach additional text and / or simple drawings such as layout diagrams, etc.

Item	#	Parameter Description	Application Data
<b>Site &amp; Process ID</b>	1.	Number of installations planned at this plant:	_____
	2.	Identification of this specific process location (name and tag number / code, if applicable):	Process Name/ID: _____ Tag #: _____
<b>Application Basics</b>	3.	Process / application / fuel (provide as much info as possible):	<input type="checkbox"/> FCC <input type="checkbox"/> Flare <input type="checkbox"/> Refinery <input type="checkbox"/> Power Plant <input type="checkbox"/> Primary Air <input type="checkbox"/> Sec. Air <input type="checkbox"/> Recovery Boiler <input type="checkbox"/> Thermal Oxidizer <input type="checkbox"/> Sulfur Recovery <input type="checkbox"/> Coal <input type="checkbox"/> Oil <input type="checkbox"/> Wet Scrubber <input type="checkbox"/> Bag House <input type="checkbox"/> Other/Rmks: _____
	4.	Purpose of measurement:	<input type="checkbox"/> Compliance <input type="checkbox"/> Efficiency <input type="checkbox"/> Loss Control <input type="checkbox"/> Other: _____
<b>OFS Basics</b>	5.	OFS Control Unit packaging:	<input type="checkbox"/> Rack Mount <input type="checkbox"/> NEMA4 <input type="checkbox"/> NEMA4X (SS)
	6.	OFS model type (If known, else leave blank):	<input type="checkbox"/> Standard <input type="checkbox"/> F – Flare (Extended Range Velocity) <input type="checkbox"/> L – Low Flow Optimized <input type="checkbox"/> H – Hi Flow Optmzd. <input type="checkbox"/> V – Velocity + Opacity <input type="checkbox"/> W – Hi Power / AGC <input type="checkbox"/> P – Velocity + Particulate Mass
<b>Stack Details (Skip if N/A)</b>  <i>Note: One of stack, pipe or duct detail sections must be completed...</i>	7.	Stack dimensions:	Inlet Diameter: _____ feet (base) Outlet Diameter: _____ feet (top)
	8.	Construction of stack:	<input type="checkbox"/> Steel <input type="checkbox"/> Cement <input type="checkbox"/> Brick <input type="checkbox"/> Refrac.Lined <input type="checkbox"/> Other _____
	9.	Is there annular space? Distance btwn. walls?:	<input type="checkbox"/> No <input type="checkbox"/> Yes – Wall Separation: _____ ft.
	10.	Will OFS be installed in the annular area?	<input type="checkbox"/> No <input type="checkbox"/> Yes
	11.	OFS to be installed on existing angled ports?	<input type="checkbox"/> No <input type="checkbox"/> Yes
	12.	Cross-stack path length between user flanges:	_____ feet (flange to flange)
<b>Pipe Details (Skip if N/A)</b>	13.	Pipe diameter:	_____ units: <input type="checkbox"/> feet <input type="checkbox"/> inches <input type="checkbox"/> cm.
	14.	Pipe schedule or wall thickness:	_____
	15.	Cross-pipe path length between user flanges:	_____ units: <input type="checkbox"/> feet <input type="checkbox"/> inches <input type="checkbox"/> cm.
<b>Duct Details (Skip if N/A)</b>	16.	Duct dimensions:	_____ x _____ units: <input type="checkbox"/> feet <input type="checkbox"/> inches <input type="checkbox"/> cm.
	17.	Duct wall design / thickness / rigidity:	_____
	18.	Cross-duct path length (between user flanges):	_____ units: <input type="checkbox"/> feet <input type="checkbox"/> inches <input type="checkbox"/> cm.
<b>Installation Environment</b>	19.	Ambient temp. where OFS heads are to be installed, meas'd 8" away from stack/duct wall:	Min: _____ °F      Max: _____ °F
	20.	Installation location (OFS heads):	<input type="checkbox"/> Stack <input type="checkbox"/> Pipe <input type="checkbox"/> Duct <input type="checkbox"/> Indoors <input type="checkbox"/> Outdoors
	21.	Ambient air quality / cleanliness around heads:	<input type="checkbox"/> Clean <input type="checkbox"/> Dirty <input type="checkbox"/> Corrosive <input type="checkbox"/> Other _____
	22.	Cabling distance between heads & control unit:	_____ ft. (300 feet max.)

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<b>Measurement Path</b>	23.	Measurement path distance from disturbances (bends, inlets, fans, obstructions, etc):	Upstream _____ ft.	Downstream _____ ft.	
	24.	Instrument port config. (new ports should be 90° 4" pipe with 150 lb. flat-faced 8 bolt flanges.)	<input type="checkbox"/> New <input type="checkbox"/> Existing <input type="checkbox"/> 90° <input type="checkbox"/> 45° Pipe/flange size: _____		
	25.	Type of obstructions present at either end:	<input type="checkbox"/> Bend <input type="checkbox"/> Inlet <input type="checkbox"/> Fan <input type="checkbox"/> Obstruction <input type="checkbox"/> Other: _____		
	26.	Expected vibration to be experienced by heads:	<input type="checkbox"/> None <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High		
	27.	Is dry / oil-free plant air available (if needed)?	<input type="checkbox"/> Yes <input type="checkbox"/> Distant <input type="checkbox"/> Not Available		
	28.	Sketch /drawing of proposed installation location and pipe / stack / duct layout configuration:	<input type="checkbox"/> Attached <input type="checkbox"/> N/A (Describe below in detail)		
<b>Flow Media / Exhaust Gas</b>	29.	Expected flow velocities during operation:	Low: _____ m/s	Hi: _____ m/s	Typ: _____ m/s
	30.	Pressure at measurement point in inches H2O:	Min: _____	Max: _____	Typ: _____
	31.	Typical flow temperature:	Low: _____ °F	Hi: _____ °F	Typ: _____ °F
	32.	Moisture level (99% or less):	Max: _____ %	Typ: _____ %	
	33.	Opacity (99% or less):	Max: _____ %	Typ: _____ %	
	34.	Are there condensed liquid droplets present?	<input type="checkbox"/> None <input type="checkbox"/> Intermittent <input type="checkbox"/> Always		
	35.	List significant corrosives present beyond trace quantities (HF, H2S etc):	_____		
<b>Communications</b>	36.	Inputs / outputs needed:	<input type="checkbox"/> Calibration initiate <input type="checkbox"/> RS-232 serial data <input type="checkbox"/> 4-20ma current loop(s) <input type="checkbox"/> Relay outputs		
	37.	Serial data output options (RS232 standard):	<input type="checkbox"/> Standard RS232 <input type="checkbox"/> Limited Distance Modem <input type="checkbox"/> Fiber Optic Modem <input type="checkbox"/> Other (List Below)		
<b>Options</b>	38.	Area classification for purging sensor heads:	<input type="checkbox"/> None <input type="checkbox"/> Class I Div I <input type="checkbox"/> Class I Div II		
	39.	Area classification for purging control unit box:	<input type="checkbox"/> None <input type="checkbox"/> Class I Div I <input type="checkbox"/> Class I Div II		
	40.	Z-Purge Controller(s) w/ alarm needed?	<input type="checkbox"/> No <input type="checkbox"/> Yes, heads only <input type="checkbox"/> Yes, heads & box		
	41.	Stainless steel marking tags (3) needed?	<input type="checkbox"/> No <input type="checkbox"/> Yes – By OSi <input type="checkbox"/> Yes – By Customer		
	42.	Gate valves (for high temp. / pressure) needed?	<input type="checkbox"/> No <input type="checkbox"/> Yes – By OSi <input type="checkbox"/> Yes – By Customer		
	43.	Sight glasses (for high temp. / pressure) needed?	<input type="checkbox"/> No <input type="checkbox"/> Yes – By OSi <input type="checkbox"/> Yes – By Customer		
<b>Additional Remarks / Information</b>	44.	Include any additional information below that you feel may be relevant:			
	a				
	b				
	c				
	d				
<b>Contact info for person completing form:</b>		Name: _____ Phone: _____			

Thank-you for taking time to provide complete & accurate information. This will help insure a smooth installation & setup of your flow measurement application. OSI's desire is to make satisfied customers, not just sensor sales.

**When completed, please return to:**

PML Process Technology  
 e-mail: [support@pmlprocess.com](mailto:support@pmlprocess.com)  
 Fax: 905-282-9903  
 Attn: Paul Lawrence