

## REQUEST # 10919-1

### Compact, Low Cost Water Jet Pump with a High Delivery Pressure

**RESPONSE DUE DATE:** December 21, 2007

**POINT OF CONTACT:**

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**Opportunity**

Contract development, Components supply

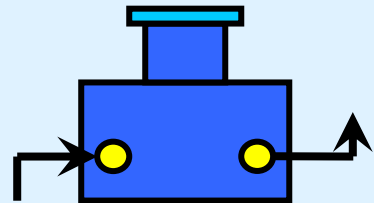
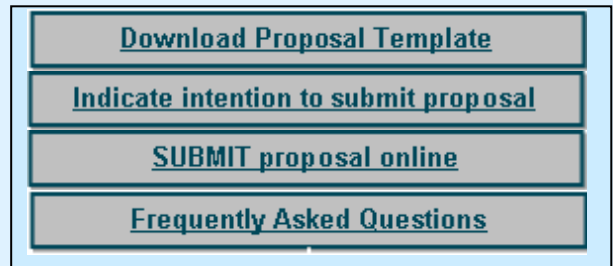
**Timeline**

Completion of prototypes: Up to 1 year

Commercialization: Up to 1 year

**Financials**

Up to US\$ 100,000/year (Details to be discussed separately)



**REQUEST FOR PROPOSAL DESCRIPTION**

NineSigma, representing a multi-billion dollar manufacturer of electric machinery, invites proposals for a compact, high delivery pressure water jet pump to be used in household appliances.

The technical requirements for the pump are as follows:

- Dimensions of the entire pump system: ≤ Diameter  $\phi$  100 mm × Length 200 mm
- Rated delivery pressure: 3 MPa (variable from 0.5 to 3 MPa)
- Rated flow rate: ≥ 6 L/min (at 0 to 85 °C)
- Rated output power: Approx. 500 W
- Durability: Cumulative service time should be ≥ 3,000 hours.
- Presumed unit price for an annual output of 500,000 units must be ≤ US\$ 50.

Proposals should cover the following points:

- The operating mechanism of the proposed pump system
- When the respondent has a series of pumps, the specifications (shape and dimensions, rated delivery pressure, rated flow rate, rated output power, and durability) for the model that most closely matches the client's requirements.
- Estimated unit price for an annual output of 500,000 units and the rationale for the pricing.

- Technical approaches to producing a pump system that will satisfy the client's requirements and the rationale for the feasibility of the approaches

Please use the response template for proposal submissions.

(Response Template:

[http://files.ninesigma.com/mx/10919-1/Response\\_Template.doc](http://files.ninesigma.com/mx/10919-1/Response_Template.doc))

**BACKGROUND**

NineSigma's client is an industry leader with unique product technology and a firm global position in the electric appliance industry.

The client has a line of household appliances with an annual output of several hundred thousand units, each with a water jet pump system, and the client has decided to develop high-performance water jet pumps in order to further improve the performance of these products.

Although there are pumps with the desired shape, delivery pressure, rated flow rate, and rated output power available on the market, most of them are far more durable than what is required, resulting in exorbitant prices for appliances.

Thus, the client now calls for a partner who can produce high-performance, low-cost pumps that are suitable for appliances. Commercializing the

this technology is expected to have an immense impact on strengthening competitiveness of existing appliances and expanding demand.

### **POSSIBLE APPROACHES**

The client will welcome a wide variety of proposals ranging from improving or modifying existing pumps to lower their price, to creating conceptual designs for radically novel operating mechanisms.

### **ANTICIPATED PROJECT PHASES OR PROJECT PLAN**

Conceivable approaches include but are not limited to the following:

The client will examine the proposals, query the respondents as needed, and select a few promising proposals.

The client will then conclude a non-disclosure agreement (NDA) with each of these respondents and ask them to disclose further information, and may request samples as required to evaluate the technology.

When the client selects a proposal the promises to meet the requirements, the client will conclude a joint development agreement with the respondent.

The client assumes that up to 1 year will be required to complete the prototypes and a further 1 year will be required for developing the actual service models.

The client finally assumes to have components supply from the respondent. Details are discussed and decided later.

## **RESPONDING TO THIS REQUEST**

### **NON-CONFIDENTIAL DISCLOSURE**

**By submitting a Response you represent that the Response does not and will not be deemed to contain any confidential information of any kind whatsoever.**

Your Response is limited to no more than 3 pages. The Response should briefly describe the technical approach; provide information on technology performance, background, and description of the responding team and their related experience.

By submitting a Response, you acknowledge that NineSigma's client reserves the sole and absolute right and discretion to select for award, all, some, or none of the Responses received for this announcement. NineSigma's client may also only choose to select specific tasks within a proposal for award. NineSigma's client has the sole and absolute discretion to determine all award amounts.

### **RESPONSE EVALUATION**

The **Response** will be evaluated using the following criteria:

- Overall scientific and technical merit of the proposed approach
- Approach to proof of concept or performance
- Potential for proprietary position (i.e., is the technology novel or protectable)
- Economic potential of concept
- Offeror's capabilities and related experience
- Realism of the proposed plan and cost estimates

The offerors with highly responsive proposals will be contacted for next steps.