STATEMENT OF WORK

Provision of Precision Engineering Services

1. Scope

This Statement of Work (SOW) describes the requirements for providing Precision Engineering Services for the Mechanical Workshop of the IAEA Office of Safeguards Analytical Services (hereinafter referred to as the "Services"). The Services are required to assist the Mechanical Workshop fabricate mechanical parts for diverse IAEA projects.

2. Definitions, Acronyms and Abbreviations

CNC shall mean Computer Numerical Control; and

IAEA shall mean International Atomic Energy Agency.

3. Requirements

The Contractor shall be able to fabricate mechanical parts and assembly items of diverse material, shape, size and function using state-of-the-art techniques and machinery.

The Contractor shall be able to undertake all or one of the following services:

Lot 1 - Anodizing;
Lot 2 - Laser Cutting;
Lot 3 - Milling;
Lot 4 - Technical drawing (AutoCAD Inventor/Solidworks);
Lot 5 - Turning; and
Lot 6 - Welding.

The Contractor shall deliver the Services within 2 weeks of issuance of the individual Purchase Order, unless stated otherwise.

<u>Lot 1 - Anodizing:</u>
The most common form of anodizing by the IAEA is Type II (U.S Military Specification, MIL-A-8625), where the coating thickness shall not be greater than 25µm,

The Contractor shall anodize all aluminium mechanical parts in a specified PANTONE colour, when specified as part of the Purchase Order. The two most common colours are:

- Blue, C100 M91 Y6 K30.
- Black, C0 M0 Y0 K100

The quality of the finish shall be regular and uniform over the entire mechanical part and throughout all the requested Services over the duration of this Agreement.

The Contractor shall deliver the Services within 1 week of receipt of the materials.

The anodized parts shall be packed and specifically protected to prevent mechanical and cosmetic damage.

Lot 2 - Laser Cutting:
The Contractor shall provide the Services with high precision laser cutting and 3D milling tool with X and Y travel not less than 1000mm and 800mm respectively.

Lot 3 - Milling:
The Contractor shall provide the Services with 3-D and 5-D axis milling and using CAD/CAM programming software; the Contractor shall produce small parts through to parts not less than 800mm by 800mm.

Lot 4 - Technical drawing (AutoCAD/Solidworks):
The Contractor shall provide engineering and computer aided design support to design, draw and finalise mechanical assemblies and components able for manufacturing companies to produce.

The Contractor shall offer services in both AutoCAD Inventor and Solidworks software packages.

Lot 5 - Turning:
The Contractor shall provide the Services with machines able to deliver small parts through to parts not less than 550mm diameter and with a maximum length not less than 1000mm.

Lot 6 - Welding:
The Contractor shall use tungsten inert gas welding (TIG), “WIG, Wolfram-Inertgasschweißen” in accordance to EN ISO 4063: Reference number 141.

4. Requirements to the Materials and Quality Standards

The following materials (including but not limited to) shall be used, as and when instructed:

- Aluminium
- Brass
- Cobalt
- Copper
- Lead
- Macor
- Polyethylene (HDPE, PE5, PE10)
- Polypropylene
- Polyvinyl chloride

- Stainless Steel
- Teflon
- Tungsten
- Wrought aluminium

All materials will be specified on the individual Purchase Order and associated drawings with Material Number and EN symbol.

The following finishes shall be achievable:

- Electro-polished;
- Polished; and
- Polished with PE-foil.

Drawings for all mechanical parts, when available, shall be provided in .pdf (and .dxf, when available) format by IAEA. When the drawings are not available, the Contractor shall produce the necessary drawings in .dwg, .pdf and .dxf formats and provide these upon delivery with the Services.

Assemblies may require mechanical parts to be provided by the IAEA. These will be provided when the Services are requested.

The Contractor shall provide accurate Services within the standard tolerances specified in:

- DIN 2768: Tolerance Class “m”
- DIN 2768 Tolerance “H”
- EN ISO 9013: Tolerance Class “1”

5. Deliverable Data Items

As part of the delivery package, the Contractor shall supply the requested mechanical parts together with individual dwg, .pdf, or.dxf files for all parts where drawings were not provided.

All communication and design documentation shall be in English language.