

Material Requisition for Energy Dispersive X-Ray Fluorescence (ED-XRF)

Scope of Supply

Quantitative determination of additive elements, wear elements and contaminants present in used oil.

TECHNICAL REQUIREMENTS

- Operating Principle: Energy Dispersive X-ray Fluorescence (ED-XRF)
- Unit: ppm
- Test Result: Sulphur, Calcium, Magnesium, Phosphorous, Zink, Silicon, Aluminum, Chromium, Copper, Iron, Molybdenum, Lead, Nickel, Vanadium, Chlorine, Potassium, Sodium
- Result Range: see Annex Table 1
- Calibrated and certified.
- Installation, calibration and training.
- The apparatus to be supplied ready for use.

CODES AND STANDARDS

- CE certified.

RESPONSIBILITY OF VENDOR

Vendor shall be responsible for the supply, testing, delivery and satisfactory operation of the equipment.

The Vendor shall list all exceptions and deviations to any requirements of this Material Requisition and documents referenced. In the absence of such a statement, full compliance will be assumed.

GUARANTEES

Vendor shall warrant that design, operating conditions, equipment and materials supplied meet the requirements of this requisition and codes referred.

Warranty period shall be at least two (2) years.

SPARE PARTS

Vendor shall provide spare part list for two years operation and the price for these items.

Vendor shall guarantee spare parts sufficiency for at least 10 years.

OPERATION AND MAINTENANCE INSTRUCTIONS

Vendor shall provide complete and detailed operation and maintenance manuals (parts list, installation manual, user manual etc). These manuals shall include detailed operation, maintenance and calibration procedures and troubleshooting guide for specific problems.

CALIBRATION

Calibration certificate shall be supplied.

AFTER SALES SUPPORT

Full technical support and response to malfunction cases should be provided within 48 hours.

DELIVERY TERMS

DAP delivery,

1. Collection Center VOLOS, B' VIPE.
2. Collection Center HERAKLION, VIPE.

Further Address Details will be submitted to Vendor

Vendor must provide short time of Equipment delivery.

TECHNICAL PROPOSAL

Technical Proposal should include the following information:

1. Technical data sheet with all specifications of the proposed apparatus.
2. Underlying test standard, detection limit, sample size, test duration, required operator time.
3. Brief description of the elemental analysis procedure.
4. Regular maintenance requirements and cost.
5. Calibration requirements and cost.
6. Verification standards and their cost.
7. Included accessories.
8. Spare parts requirements.
9. Utility Requirements.
10. Weight & Dimensions.
11. Delivery time.
12. Customer list in Greece and abroad for this specific apparatus.

ANEX – TABLE 1

ELEMENT	RESULT RANGE
S	0 - 20.000
Ca	0 - 25.000
P	0 - 2.500
Zn	0 - 2.500
Mg	0 - 2.000
Mo	0 - 1.000
Cl	0 - 3.000
Fe	0 - 10.000
Cu	0 - 5.000
Ni	0 - 1.000
Cr	0 - 1.000
Al	0 - 1.000
Pb	0 - 1.500
K	0 - 3.000
V	0 - 1.000
Si	0 – 15.000
Na	0 – 3.000