

Commercial Proposal for the Supply of Stationary Analyzers and Laboratory Spectrometers for Metal Analysis

Direct shipments from China for central plant laboratories, research institutes, testing centers, and metallurgical enterprises in Russia, Kazakhstan, Belarus, Ukraine, and CIS countries

Author: [Milosh Kovachevic](#) — Senior Consultant for Industrial Machinery and Production Lines

Supplier Company: Metal-Asia.pw — Direct industrial equipment shipments from China

Date of Preparation: April 2026

Validity Period: 30 calendar days

Table of Contents

- [1. Customer Challenges and Our Solutions](#)
 - [2. Catalog of Stationary Spectrometers](#)
 - [3. Technical Specifications of Models](#)
 - [4. Laboratory Complexes and Automation](#)
 - [5. Delivery Specifications and Configuration](#)
 - [6. Customs Clearance and HS Code Classification](#)
 - [7. Implementation, Calibration, and Maintenance Services](#)
 - [8. Delivery and Payment Terms](#)
 - [9. Contact Information](#)
-

1. Customer Challenges and Our Solutions

1.1. Operational Challenges for Stationary Analyzer Users in the CIS Region

Problem	Cause	Solution
Unstable results due to temperature fluctuations	Insufficient optical thermostabilization	Supply of spectrometers with active thermal compensation AAC
Inability to determine gaseous elements (C, N, O, H)	Outdated optics without UV range	Models with evacuated UV chamber (130-170 nm)
High total cost of ownership	Inflated consumable prices through distributors	Direct argon, electrode, and window shipments at factory prices
Lack of LIMS integration	Outdated software without API	Delivery with ready connectors for SAP, 1C, LabWare

Problem	Cause	Solution
Extended personnel training time	No Russian-language courses	2-day on-site training with Russian-speaking engineer
Non-compliance with Rostekhnadzor requirements	No Russian certification	Document preparation package for Rosaccreditation

1.2. Target Customers

- Central plant laboratories (CPL) of metallurgical combines
- Testing and certification centers (ROSSTEST, VNIIT)
- Metallurgy and materials science research institutes (IMET RAS, VNIIMT, etc.)
- Nuclear industry (Rosatom, Ulba Metallurgical Plant)
- Aviation and rocket-space industry
- Pipe and section rolling mills
- Bearing, spring, and precision alloy manufacturers
- Independent quality control laboratories

2. Catalog of Stationary Spectrometers

2.1. Benchtop XRF Spectrometers

Bruker CTX 800 (Portable Benchtop)

Parameter	Value
Method	ED-XRF with graphene SDD
Elemental Range	Mg (12) – U (92)
Resolution	< 140 eV @ Mn K-alpha
Simultaneous Analysis	Up to 48 elements
Detection Limit	0.5 ppm – 100%
Weight	7.1 kg
Dimensions	140 x 250 x 300 mm
Beam Interlock	2 independent interlocks
Power	Mains 110-220V / battery
Application	Laboratory control of slag, cement, ferroalloys, ores
Price FOB Shanghai	from 16,800 USD

Skyray EDX3600H (Laboratory XRF)

Parameter	Value
Method	ED-XRF with vacuum chamber
Elemental Range	Na (11) — U (92)
Detector	Electronically cooled SDD
Resolution	140 ± 5 eV
X-ray Tube	50 kV, 1000 µA, W anode
Vacuum Chamber	Up to 10 Pa
Sample Chamber	320 x 100 mm
Dimensions	660 x 510 x 350 mm
Weight	65 kg
Application	Full laboratory analysis of ferroalloys, slag, ores, catalysts
Price FOB Shanghai	from 22,000 USD

2.2. Premium-Class Stationary Optical Emission Spectrometers

Bruker Q4 TASMAN 130 (with N, O analysis)

Parameter	Value
Wavelength Range	130 — 620 nm
Optics	Evacuated UV chamber + visible range
Gaseous Element Analysis	C, N, O, P, S, H
N Detection Limit	5-20 ppm in steel
O Detection Limit	10-50 ppm in Cu
Resolution	< 25 pm
Weight	82 kg
Price FOB Shanghai	from 72,000 USD

Bruker Q8 MAGELLAN (PMT-based Premium)

Parameter	Value
Optical System	Paschen-Runge 750 mm
Detectors	Photomultipliers (PMT) + CCD
Wavelength Range	120 — 800 nm
Number of Channels	Up to 80 (PMT) + 64 (CCD)

Parameter	Value
Resolution	< 15 pm
Time Resolved Spectroscopy	Yes (temporal resolution)
Detection Limit	0.01-1 ppm (sub-ppm for PMT)
Accuracy	< 0.5% RSD
Pure Metal Analysis	Yes (99.99%+)
Dimensions	1200 x 800 x 1100 mm
Weight	220 kg
Price FOB Shanghai	from 120,000 USD
Application	High-precision analysis of pure metals, titanium alloys, micro-impurities

2.3. FT-IR Spectrometers for Metallurgy

Bruker ALPHA II (Compact FT-IR)

Parameter	Value
Technology	Fourier Transform Infrared Spectroscopy
Range	7800 — 375 cm ⁻¹
Resolution	2 cm ⁻¹ (optional 1 cm ⁻¹)
Detector	DTGS or MCT
Weight	7 kg
Application	Analysis of coatings, scale, lubricants on metals
Price FOB Shanghai	from 28,000 USD

Bruker INVENIO (Laboratory FT-IR)

Parameter	Value
Range	7800 — 50 cm ⁻¹
Resolution	0.5 cm ⁻¹
Optics	Gold-coated mirrors, RockSolid
Detector	DLaTGS, MCT, InGaAs (options)
Modules	ATR, transmission, diffuse reflection, external reflection
Application	Research of metal coating structure, corrosion products

Parameter	Value
Price FOB Shanghai	from 45,000 USD

3. Technical Specifications of Models

3.1. Comparative Table of Stationary Analyzers

Parameter	CTX 800	EDX3600H	Q4 TASMANTASMAN 130	Q8 MAGELLAN	ALPHA II	INVENIO
Method	ED-XRF	ED-XRF	Spark-OES	Spark-OES	FT-IR	FT-IR
Elements	Mg-U	Na-U	Full (C,N,O)	Full + traces	Not applicable	Not applicable
Detection Limit	0.5 ppm	0.1 ppm	0.1-10 ppm	0.01-1 ppm	—	—
Weight, kg	7.1	65	82	220	7	45
Sample Prep Required	No	No	Yes	Yes	No	No
Argon Required	No	No	Yes	Yes	No	No
Analysis Time	30-300 s	60-200 s	15-30 s	20-40 s	10-60 s	5-30 s
Price from, USD	16,800	22,000	72,000	120,000	28,000	45,000

4. Laboratory Complexes and Automation

4.1. Automated Spectral Laboratories

Metal-Asia.pw offers comprehensive solutions for automating central plant laboratories:

Component	Description	Price from, USD
Automatic Sample Feeding Table	Robotic feeding up to 120 samples/hour	18,000
Sample Recognition System	Barcode scanner + RFID	3,500
Sample Preparation Module	Automatic surface cleaning	8,500
LIMS Connector	Integration with SAP, 1C, LabWare	2,800
Data Server	Result storage and archiving	4,200
Turnkey Complex	Complete CPL automation	from 85,000

5. Delivery Specifications and Configuration

5.1. Basic Configuration

Item	Quantity	Description
Spectrometer	1 pc.	Main unit with complete optics
Vacuum System (if applicable)	1 set	Vacuum pump, sensors, valves
Computer	1 pc.	Industrial PC with Windows 10/11
Monitor	1 pc.	24-27 inches
Software	1 license	Elemental.Suite or ToolBox
CRM	1 set	Calibration samples
Starter Consumables Set	1 set	Electrodes, windows, abrasives
Documentation	1 set	Russian-language manual, passport

5.2. Options

Option	Price, USD
Additional Matrix	+ 3,500
On-site Commissioning	+ 4,500
Training (2 days, 2 persons)	+ 1,800
Extended Warranty to 24 months	+ 8,500
LIMS Integration	+ 2,800

6. Customs Clearance and HS Code Classification

HS Code	Name	Duty	VAT
9027 30 000 0	Optical spectrometers	0%	20%
9027 90 500 0	Parts for spectrometers	0-5%	20%
8414 10 100 0	Vacuum pumps	5%	20%

7. Implementation, Calibration, and Maintenance Services

7.1. Service List

Service	Description	Timeline	Price
Spare Parts for Analyzers			

Service	Description	Timeline	Price
SDD Detector (XRF)	Original Bruker/Skyray SDD	7-14 days	3,500-12,000 USD
Vacuum Pump (for EDX3600H)	Rotary vane pump	7-14 days	800-1,500 USD
X-ray Tube (XRF)	50 kV, Ag/Rh/W	7-14 days	1,800-3,200 USD
CCD Detector (OES)	ClearSpectrum CCD	14-21 days	8,500-12,000 USD
Diffraction Grating (OES)	Holographic	21-30 days	4,500-6,800 USD
Spark Stand Window	Quartz/sapphire	In stock	180-450 USD
Calibration			
Factory Calibration	On CRM for ordered matrices	5-7 days	Included
GOST Database Loading	Reference books loading	1-2 days	300-500 USD
LIMS Integration	API connector setup	3-5 days	1,500-2,500 USD
Operator Training	2-day on-site course	2 days	1,500 USD
Repair			
Diagnosis	Full hardware inspection	1-2 days	200-400 USD
Detector Replacement	With calibration	3-7 days	from 4,000 USD
OES Optics Cleaning	Complete disassembly and cleaning	3-5 days	800-1,200 USD
Verification	With certificate issuance	3-5 days	600-1,000 USD
Remote Diagnostics			
Software Connection	Via remote access	Same day	Free
Problem Analysis	Engineer diagnostics	1-3 hours	Free
Calibration Correction	Remote recalibration	2-3 hours	300 USD

7.2. Service Packages

Package	Silver	Gold	Platinum
Annual Cost	1,800 USD	3,600 USD	7,200 USD
Remote Diagnostics	Unlimited	Unlimited	Unlimited
Engineer Dispatch	1 time/year	2 times/year	4 times/year
Spare Parts Discount	10%	20%	30%

Package	Silver	Gold	Platinum
Priority	Standard	Elevated	Maximum
Dedicated Manager	No	Yes	Yes

8. Delivery and Payment Terms

Term	Option
Delivery	FOB Shanghai / CIP / DAP
Payment	50/50 or 100% prepayment (-3%)
Production Time	6-10 weeks
Delivery	14-25 days
Installation	2-3 days (optional)
Warranty	12 months (extendable to 24)

9. Contact Information

For all questions regarding the supply of stationary analyzers and laboratory spectrometers, technical specifications, after-sales service, and pricing, please contact us at our website www.metal-asia.pw:

Customer Relations Department:

- **WhatsApp:** +86 132 50100874
- **Telegram:** @China_metal_supply
- **Email:** zakaz@metal-asia.pw
- **Official Website:** www.metal-asia.pw

Sales Department Working Hours: Monday — Friday: 9:00 AM to 6:00 PM Beijing Time (MSK+5, ALM+2)

Author of Commercial Proposal: [Milosh Kovachevic](#) — Senior Consultant for Industrial Machinery and Production Lines Faculty of Mechanical Engineering, University of Belgrade Languages: Technical Chinese, English, Serbian, Russian

Document prepared by: [Milosh Kovachevic](#), Metal-Asia.pw **Date:** April 2026 **Version:** 1.0