

TERM OF REFERENCE (TOR) BARANG



No. PR: CBT/PR-26/INV/0580

1. TUJUAN PENGADAAN

Investasi bertujuan sebagai alat untuk pengujian di Laboratorium MGK.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium **SBU Laboratorium sub bagian MGK.**

2. SPESIFIKASI TEKNIS

Nama barang ^{a)}	Destilation Automatic
Merk	Anton Paar
Type	-
Persyaratan tambahan	<p>Product Descriptions :</p> <p>The new PAC OptiDist 2 atmospheric distillation instrument is a ground-up redesign, incorporating all the best features from the OptiDist and updating them for many years of optimal performance and reliability. The redesign centers around the new patent-pending solid state thermosiphon cooling system, which achieves extremely fast, uniform, and efficient temperature control of the condenser. Combined with precise heater system control using the unique patented dual optimizer, distillation conditions are precisely monitored and controlled to achieve premium repeatability and precision of the measurement process.</p> <p>Specifications :</p> <p>User Interface: Large TFT-LCD (Thin Film Transistor Liquid Crystal Display) touchscreen with solvent protection</p> <p>Thermosiphon system provides highly efficient cooling for the condenser system, ensuring optimal performance.</p> <p>Dual optimizer technology enables accurate real-time temperature control for consistent, repeatable results.</p> <p>Thermosiphon primary condenser cooling system with no moving parts for long term reliability</p> <p>Automatic heater lift for reliability and ease of use.</p> <p>Heating System: Low-mass, low-voltage heating system with automatic positioning. Unique optimizer function fully automates initial heating parameters and heat regulation, Heater plate sensor, vapor probe, and centering device</p> <p>Condenser System: Temperature range 0°C to 60°C, Constant temperature, ramp temperature, or special programmable temperature profile, Accuracy: $\pm 0.5^{\circ}\text{C}$ at 25°C ($\pm 0.9^{\circ}\text{F}$ at 77°F)</p>

<p>Persyaratan tambahan</p>	<p>Receiver Chamber: Temperature range 10°C to 60°C, Constant temperature, ramp temperature, or special programmable temperature profile, Instant playback on power-up, 100 mL measuring cylinder, "Measuring cylinder in place" and "door open" sensors, Accuracy: ± 0.5°C (± 0.9°F)</p> <p>Cooling System: CFC-free cooling unit, Factory-sealed cooling circuit with 12% ethylene glycol and 88% distilled water as heat exchange fluid</p> <p>Connectivity: USB A: Optional external printer, barcode scanner, or USB memory device for data transfer and system updates, RJ45: Ethernet connection, Hose nozzle. Inlet connection for extinguisher gas source</p> <p>Distillation Speed: 2 to 10 mL/min, programmable, Automatically records the distillation rate displayed on the screen during the test</p> <p>Vapor Temperature: Range: 0°C to 450°C (32°F to 840°F), Accuracy: Class A IEC 751 Pt100 sensor, Built-in calibration memory with 10-point calibration table and automatic probe ID detection; calibration history</p> <p>Sample Volume: Optical measurement system compatible with smoke-producing samples in the receiver, Range: 0% to 103% of charge volume, Resolution: 0.03 mL (internal), Accuracy: ± 0.1 mL</p> <p>Heating Element Temperature : Thermocouple K</p> <p>Ambient Pressure : Range: 70 to 110 kPa (525 to 825 mmHg)</p> <p>Scope of Supply :</p> <p>OptiDist2 Automated Atmospheric Distillation Analyzer</p> <p>Measuring Cylinder 100ml</p> <p>Flask 125ml</p> <p>Vapor Probe Stopper for 125ml flask</p> <p>Vapor Probe with calibration certificate calibrated at 50°C and 250°C</p> <p>Vapor Probe wire guide and holder</p> <p>Heater Base Plate 50 mm opening</p> <p>Heater Base Plate 38mm opening</p> <p>Silicone hose for flask connection</p> <p>Rubber Cap for Measuring Cylinder</p> <p>Condenser Cleaner</p> <p>Receiver Chamber Liquid Vessel</p> <p>Ethernet cable 3 m</p> <p>Hose connection piece</p> <p>VOC plug</p> <p>CRM for commissioning</p>
<p>Jumlah</p>	<p>1 Unit</p>

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2. SPESIFIKASI TEKNIS

Nama barang ^{a)}	EraFlash X (Part of Oil Condition Monitoring)
Merk	Anton Paar
Type	-
Persyaratan tambahan	Spesifikasi Terlampir
Jumlah	1 Unit

Test Methods	ASTM D7094, IP 620
Fuel Specifications	ASTM D396, D975, D2880, D3699, D7467
Speed Tests	Fast screening test programs for non-spec fuels
PBT – Peltier Boost Technology™	High-speed heating and cooling
CPT - Contamination Prevention Technology™	Advanced electrode protection and self-cleaning ignition system to minimize cleaning and maintenance
QuickCal™	In-situ calibration with eralytics unique calibration cups without needing to dismantle the instrument
Fuel Dilution Program	Automatic fuel dilution measurement for the analysis of used engine oils
Temperature Range	18 °C to 370 °C (64 °F to 689 °F)
Temperature Stability	0.1 °C (0.2 °F)
Turnaround Time	up to 5 measurements per hour
Sample Volume	2 mL
Reproducibility	R = 3.2 °C for diesel fuel @ 60 °C (ASTM D93: R = 4.3 °C) R = 5.6 °C for lube oil @ 200 °C (ASTM D93: R = 14.2 °C)
Result Database	Over 100 000 detailed test reports stored
PC Software	ERASOFT RCS - Windows® software for convenient data transfer and result analysis
Remote Control	Remote service capability via Ethernet
Interfaces	Built-in PC with Ethernet, USB, and RS232 interfaces, Wi-Fi via USB dongle Direct LIMS connectivity via LAN and output to printer or PC
Display	Industry proven 5.7" multilingual color touchscreen
Languages	English, German, French, Spanish, Japanese, Chinese, Additional languages available upon request
Power Requirements	Auto-switching 85 - 264 V, AC 47 - 63 Hz, max 150 W, Field application: optional 12 V DC adapter
Operating Conditions	10 °C to 40 °C, humidity up to 90% RH, non-condensing
Dimensions & Weight	W x D x H = 19.7 x 20.4 x 31.7 cm (7.7 x 8.0 x 12.5 in); 7.2 kg (15.9 lbs)

SYARAT-SYARAT UMUM BAGI PENYEDIA EKSTERNAL *)**

1 Keagenan

Penyedia Eksternal merupakan distributor/dealer/agen yang ditunjuk resmi oleh pabrik atau pemegang hak cipta untuk pemasaran di Indonesia yang dibuktikan dengan surat resmi penunjukan dari distributor tunggal.

2 Pengalaman Implementasi

Penyedia Eksternal berpengalaman dalam instalasi dan implementasi dengan melampirkan referensi-referensi dari perusahaan lain yang menggunakan alat tersebut.

Yang dimaksud dengan garansi adalah:

- Garansi suku cadang selama 12 bulan/1 tahun dan service selama 12 bulan/1 tahun;
- Tersedianya suku cadang;
- Tersedianya teknisi yang berpengalaman dan tercatat sebagai pegawai tetap, untuk perbaikan alat dan sanggup datang segera jika diperlukan;
- Selama masa garansi bila perbaikan-perbaikan dilakukan diluar SUCOFINDO dalam jangka waktu yang cukup lama, maka pemasok berkewajiban untuk meminjamkan peralatan pengganti, supaya operasional SUCOFINDO tidak terganggu.