

# TERM OF REFERENCE (TOR) BARANG



No. PR: CBT/PR-26/INV/0498

## 1. TUJUAN PENGADAAN

Sebagai alat sampling untuk mengukur VOC dalam sumber emisis tidak bergerak.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium **Cabang Makassar**.

## 2. SPESIFIKASI TEKNIS

Nama barang <sup>a)</sup>	Isokinetic Method 17
Merk	APEX
Type	M17 - 100FT
Persyaratan tambahan	Spesifications : CONSOLE,M5,SS,240V,METRIC PUMP,M5,220V/60Hz,W/ FRAME,SS PROBE ASB,HTD SS,BJO,5'EL,220V UMBILICAL ADAPTER,M5,NOCHKVALV NOZZLE SET,7 SS #4-16,N&F,CASE ISOKINETIC CALCULATOR,TI-83 FILTER HOLDER,SS,30X100,ORING THIMBL FILTR,GLAS FBR,30X100MM JC-S1-015-SS JUMPER,15'CFB LINE,EL-SKT-ARM JC-1-4P/PR JUMPER,4PIN M - PROBE RECPTCLE UMBILICAL,M5,25' - 10' CUTBACK M17 GLASSWARE SET,BJ & O-RING PITOT TIP,3/8x12.5",SS,PRI-TO M17 STRAIN RELIEF ASB. COLD BOX,4-IMPINGER
Gambar	
Jumlah	1 Unit

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No. PR: CBT/PR-26/INV/0498

## 1. TUJUAN PENGADAAN

Sebagai alat sampling untuk mengukur emisi logam dari sumber tidak bergerak.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium **Cabang Sangatta**.

## 2. SPESIFIKASI TEKNIS

Nama barang <sup>a)</sup>	<b>Isokinetic Method 29</b>
Merk	APEX
Type	M29 - 100FT  Spesifikasi : <ul style="list-style-type: none"><li>• Model XC-572 metering console with metric numeric display gas meter, dual column inclined manometer</li><li>• External pump assembly, vane pump lubricator, SS quick connects, 5ft power cord &amp; Hoses 240 V</li><li>• Miniature heated filter box with two access doors</li><li>• Riser for SB-2M, Impinger box adapter, 10inch riser with insulated reservoir</li><li>• Impinger Box / insulated coolant reservoir, holds 8 impingers</li><li>• 6-foot method 5 probe sheath with tube heater stainless steel 220 V 6-ft nominal length = 5-ft effective length</li><li>• 6 foot glass probe liner, 5/8 inch OD with Unground # 28 Grooved ball</li><li>• Set of 7 glass nozzles - sizes 4,6,8,10,12,14 &amp; 16, includes case &amp; 3 5/8 " glass filled PFA Ferrules</li><li>• 100 foot split umbilical cable, sample line &amp; exit TC Split 10 ft, stainless steel QCS</li><li>• Umbilical adapter (gooseneck), #28 socket with thermocouple, mounting bracket, 1/2" male QC</li><li>• Cyclone By-pass, Unground</li><li>• Adapter, Double L, 28 Unground</li><li>• Greenburg-Smith Impinger (with orifice), Unground</li><li>• Modified Greenburg-Smith Impinger (Plain), Unground</li><li>• U-Tube, Unground #28 Sockets</li><li>• #28 Ball Joint Clamp (Generic)</li><li>• Knock-Out Impinger, Short Stem, 500 mL, Unground O-ring Joints</li><li>• 3.25-inch (82.6 mm) quartz fiber filters, LabExact brand</li><li>• Brush Nozzle, Teflon, 1/2 inch</li><li>• Teflon probe brush 5/8" diameter, 2" length, 8-23 thread</li><li>• Probe Kit 10 foot Flexible PFA Probe Brush Extension, Brush not included</li></ul>
	<ul style="list-style-type: none"><li>• Console unit transport case</li><li>• Pump unit transport case</li><li>• Impinger Box/Insulated Coolant Reservoir, holds 8 Impingers</li></ul>
Jumlah	2 Unit

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## 1. TUJUAN PENGADAAN

Sebagai alat sampling udara emisi sumber tidak bergerak.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium SBU Laboratorium sub bagian AKL dan Cabang Makassar.

## 2. SPESIFIKASI TEKNIS

Nama barang <sup>a)</sup>	<b>Isokinetic Method 5 &amp; 29</b>
Merk	APEX
Type	Method 5 Include for Particulate and include Method 29
Persyaratan tambahan	<p><b>Method 5 :</b>                      Isokinetik Console 240 v                      Lubricated rotary vane pumps                      Box, MDGT,HTD,Filter, 231 VAC                      Riser, SB-2M, 10IN, Riser for SB-2M, Impinger Box Adapter, 10 inch                      Riser with insulated reservoir                      Impinger Case                      Sheath, SS, 6ft, w/heater                      Liner,Probe,SS,6ft, W/GRV                      Liner,Probe, glass, 6ft, unground                      Nozzle, set of 7, SS                      Nozzle, set of 7, gls                      U Cord, Split, 150 ft, mthd 5, ¼ QC, SS, 10 ft sample line                      Adapter, STR RLF, IMP Inlet                      Adapter, STR RLF, SB-2M Including Bracket and ½ inch ID Sampler                      Line Clamp                      Adapter, Smpl, GSNK, SCKT, SS, W/TC                      Set, Glassware, Mthd 5 Deluxe                      Filter, Glass Fiber, 3 in/8,3 cm                      Calculator, Program mthd 5                      Brush, set, nozzle, no 3,58                      Brush, Nozzle Teflon, ½ in                      Brush, Probe, Teflon, 5/8 in OD                      Brush, Probe kit 10 foot flexible PFA, Probe brush extension                      Stainless steel probe brush kit with two 5/8 brushes                      Monomount, monorail                      Monorail,9ft, steel w/chain                      Trolley, monorail, Swivel Assy                      Case Transport, XC-500 Series, W/Hinger Lid                      Case Transport Pump unit                      Unheated sample lines</p>
	<p><b>Method 29:</b>                      Set of 7 glass nozzle include case                      Filter                      Impinger                      Box, impinge, model 150 impinger                      Impinger Assambly                      U tube                      5/8 inc glass Filled PTFE Union, with nuts and ferrules                      Nozzle brush, ½ inch                      10 foot flexible PFA                      PTFE Probe Brush Tip 5/8 inch bristle diameter                      #28 Ball joint Clamp (Generic) Stainless steel (15 Required Total)</p>
Jumlah	2 Unit
Gambar	

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### 1. TUJUAN PENGADAAN

Sebagai alat sampling udara emisi sumber tidak bergerak.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium Cabang Denpasar.

### 2. SPESIFIKASI TEKNIS

Nama barang <sup>a)</sup>	<b>Isokinetic Method 5 &amp; 30</b>
Merk	APEX
Type	Method 5 Include for Particulate and include Method 30
Persyaratan tambahan	<p><b>Method 5 :</b>                  Isokinetic Console 240 v                  Lubricated rotary vane pumps                  Box, MDGT, HTD, Filter, 231 VAC                  Riser, SB-2M, 10IN, Riser for SB-2M, Impinger Box Adapter, 10 inch                  Riser with insulated reservoir                  Impinger Case                  Sheath, SS, 6ft, w/heater                  Liner,Probe,SS,6ft, W/GRV                  Liner,Probe, glass, 6ft, unground                  Nozzle, set of 7, SS                  Nozzle, set of 7, gls                  U Cord, Split, 150 ft, mthd 5, ¼ QC, SS, 10 ft sample line                  Adapter, STR RLF, IMP Inlet                  Adapter, STR RLF, SB-2M Including Bracket and ½ inch ID Sampler                  Line Clamp                  Adapter, Smpl, GSNK, SCKT, SS, W/TC                  Set, Glassware, Mthd 5 Deluxe                  Filter, Glass Fiber, 3 in/8,3 cm                  Calculator, Program mthd 5                  Brush, set, nozzle, no 3,58                  Brush, Nozzle Teflon, ½ in                  Brush, Probe, Teflon, 5/8 in OD                  Brush, Probe kit 10 foot flexible PFA, Probe brush extension                  Stainless steel probe brush kit with two 5/8 brushes                  Monomount, monorail                  Monorail,9ft, steel w/chain                  Trolley, monorail, Swivel Assy                  Case Transport, XC-500 Series, W/Hinger Lid                  Case Transport Pump unit                  Unheated sample lines</p>
	<p><b>Method 30:</b>                  Set of 7 glass nozzle include case                  Filter                  Impinger                  Box, impinge, model 150 impinger                  Impinger Assambly                  U tube                  5/8 inc glass Filled PTFE Union, with nuts and ferrules                  Nozzle brush, ½ inch                  10 foot flexible PFA                  PTFE Probe Brush Tip 5/8 inch bristle diameter                  #28 Ball joint Clamp (Generic) Stainless steel (15 Required Total)</p>
Jumlah	1 Unit
Gambar	

## **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.

### **3 Pelayanan Purna Jual/ Maintenance**

Penyedia Eksternal harus memberikan garansi selama 12 bulan/1 tahun sejak dibuatnya Berita Acara Uji Coba.

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.