



PT. BESTARI SARANA INSTRUMENT

General Instrument, Mining Laboratory,
Environment & Pollution Monitoring, and Labwares

CATALOG PRODUCT



bestarilab.com



PRODUCT CATALOGUE 2024

PT. BESTARI SARANA INSTRUMENT

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PV2 Mk II Pulverising Mill's

The Alsto **PV2 MkII Pulverising Mill's** new improved design and electronic smooth and capacity of PV2 MKII allows for the maximum sample weight of 1600 g. Alsto's PV2 MKII can reduce a wide range of mineral ores and aggregate samples to a particle size of 95% passing 75 microns in a standard 3 minute cycle depending on material type. Alsto's PV2 has a belt driven universal shaft reducing the vibration and impact stresses on the 2.2kW motor increasing the life span of the motor

Features of PV2 MKII include:

- Solid metal cabinet
- Improved Bowl Jack lifting assembly (optional)
- Log-in/User ID
- Digital run timer with cycle count
- Lock-out levels for program access
- Service reminders
- Spare Parts listing
- Remote Log-in for diagnostic and fault finding
- Easy to see air pressure gauges for in feed and airbag
- Indicator lights to show when paused or in operation
- Separated housing for electronics and pneumatics



PV5 Mk V Pulverizing Mill's

The **Alsto PV5** is supplied with bowl disc and lid fitted for "plug and play" operation.

Alsto's PV5 can reduce a wide range of mineral ores and aggregate samples to a particle size of 90% passing 75 microns in a standard cycle depending on material type* Cycle times will vary according to sample mass and type.

Alsto's PV5 has a belt driven universal shaft reducing the vibration and impact stresses on the 4.0kW motor increasing the life span of the motor. A Full range of spare parts for scheduled maintenance including wear parts , are available for maintaining optimum operation of the Pulveriser.



Alsto Grinding Elements

Range of bowls from 100 to 3500g nominal capacity.

Standard bowls, discs and lids to suit most fine pulverising mills.

The Bowls are made of hardened steel for long life and come in standard and chrome steel construction. Tungsten carbide bowl set is also available in 125cc size.

Bowl Size		Standard Steel	Chrome steel	Spacer ring
100CC	Bowl	300301	300030	702062
	Ring	300302	300021	
	Roller	300303	300022	
	Lid	300300	300315	
	O-ring	399023	399023	
125CC	Bowl	300304	300020	700500
	Ring	300302	300021	
	Roller	300303	300022	
	Lid	300300	300315	
	O-ring	399023	399023	
300CC	Bowl	300013	300017	700500
	Inner Ring	300305	300312	
	Outer Ring	300306	300313	
	Roller	300307	300314	
	Lid	300016	300016	
400CC	Lid Seal	399016	399016	700500
	Bowl	300013	300017	
	Ring	300015	300018	
	Roller	300014	300019	
	Lid	300016	300016	
125CC Tungsten Carbide	Lid Seal	399016	399016	700500
	Assembly	300501	-	
	Bowl	300502	-	
	Ring	300505	-	
	Roller	300506	-	
125CC Tungsten Carbide	Lid	300503	-	700500
	Lid Seal	399024	-	

Bowl Size		Standard Steel	Chrome steel	Spacer ring
800CC	Bowl	300010	300024	700501
	Disc	300011	300025	
	Lid	300012	300012	
1000CC	Lid Seal	399012	399012	700501
	Bowl	300007	300026	
	Disc	300008	300027	
2000CC	Lid	300009	300009	No Spacer Ring required
	Lid Seal	399009	399009	
	Bowl	300004	300028	
5000CC	Disc	300005	300029	No Spacer Ring required
	Lid	300006	300006	
	Lid Seal	399006	399006	
5000CC	Bowl	300001	-	No Spacer Ring required
	Disc	300002	-	
	Lid	300003	-	
	Lid Seal	399003	-	



Alsto Jaw Crusher

Model JC2013



Technical Data	
Jaw Inlet	: 200 x 130mm (8" x 5")
Max feed size	: 110mm
Normal Product Size	: 6mm
Maximum Product Size	: 35mm
Throughput	: 500 kg/hr at normal product size
Motor	: 4kW 3 Phase
Toggle Speed	: 300 strokes/min
Dust extraction points	: Two

Alsto Jaw Crusher

Model JC17

Technical Data	
Jaw Inlet	: 170 x 125mm
Max feed size	: 80mm (stand alone) or 50mm (with RSD)
Jaw opening setting	: 1mm (min) - 8mm (Max)
Product throughput	: 235kg/h (@1mm) - 1070kg/h @8mm
Motor	: 7.5 kW 3 Phase
Voltage—Frequency	: 380/400v—50Hz/60Hz
Dust extraction flow	: Single point @ 0.25-0.30m ³ /s
W & D (LxWxH)	: 795kg @895 x 555 x 1235mm



Alsto Rotary Sample Divider

Features include:

- Variable rate vibratory feeder
- Stainless steel hoppers and sample segments
- Full guarding for all moving parts
- Compact design allowing a small footprint
- Simple, reliable inbuilt controls
- Easily removed and replaced buckets
- Single phase power requirement



RSD Specification	
Max sample size	: 170 x 125mm
RSD Bucket Speed	: 80mm (stand alone) or 50mm (with RSD)
Infeed (Adjustable)	: 1mm (min) - 8mm (Max)
Motor	: 0.5 Kw
Voltage—Frequency	: 220v-50Hz/60Hz
Sample Buckets	: 5%, 10%, 12% (1x each)
W & D (LxWxH)	: 235kg @ 1445x1210x1135mm

Available Capacity	Most Common Bucket Sets**
5L	6 (16.66%) or 8 (12.5%) Bucket set
10L	6 (16.66%) or 8 (12.5%) Bucket set
20L	6 (16.66%) or 8 (12.5%) Bucket set
30L	6 (16.66%) or 8 (12.5%) Bucket set
40L	6 (16.66%) or 8 (12.5%) Bucket set
60L	6 (16.66%) or 8 (12.5%) Bucket set
130L	Contact Alsto for Details
1,600L	Contact Alsto for Details

** must be ordered separately—different bucket set combinations available

Alsto Laboratory Drying Oven 2m3

The **Alsto** 2M3 Drying Oven is designed to dry mineral samples prior to sample preparation and analysis.

Features include:

- Maximum 120 degrees C
- Full stainless steel internal lining
- High temperature resistance insulation
- Trolleys with high temperature castors
- 0.37 kW recirculating fan
- 3 off 4 kW Heating Elements
- Digital Temperature Control - 3 phase
- Over temperature protection
- Control box at the front allows to set the ovens side by side easily



The 2M3 Drying Oven comes with two drying trolleys that can hold 10 x #818001 Alsto Small Drying Trays per shelf or 4 x #818002 Alsto Large Drying Tray

Utilizing the centrally placed electronic touch screen the drying temperature can be set with ease

Alsto cuppellation Furnace



Gas (LPG & NG) and Diesel (50 place and 100 place)

Construction	Cabinet of 2&5 mm zinc anneal steel lined with insulating firebrick. Backed with Superwool insulation board.
Muffle Dimensions	50 place—200mm high x 260mm wide x 460mm deep 100 place—300mm high x 480mm wide x 560mm deep
Flame Supervision	LPG : Landis & Gyr LME 44 Flame Controller & U.V. Cell NG & Diesel : Landis & Gyr LFL1.635
Door Operation	50 Place : Counter-balanced, rising 100 Place : Pneumatic rising, Operated by foot control
Temperature Control	Electronic, Automatic control 1200C, type "K" Thermocouple
Electrical Requirements	The furnace is fitted with a 10 Amp single phase cord and plug top. Electrical load : 2 Amps for 50 place and 5 Amps for 100 place
Approximate overall dimensions with door open	50 Place—1740mm high x 680mm wide x 1050mm deep 100 Place—2055mm high x 1300mm wide x 1030mm deep

Alsto Cuppellation Furnace



Electrical (50 place, 100 place & 168 Place)

Construction	Cabinet of 2 zinc anneal steel lined with insulating firebrick. Backed with Superwool insulation board.
Muffle Dimensions	50 place—(Muffle #4) -200mm high x 260mm wide x 460mm deep 100 place—(Muffle #5) -300mm high x 480mm wide x 560mm deep 168 place—(Muffle #8) -370mm high x 680mm wide x 670mm deep
Heating Elements	12 x Silicon Carbide elements rated at 10.5kW/15kW/24kW, 3 Phase. Power supply is per a multi-tapped double wound transformer
Door Operation	50 Place : Counter-balanced, rising 100 Place : Pneumatic rising, Operated by foot control
Temperature Control	Electronic, Automatic control 1200C, type "K" Thermocouple. High temperature alarm, over temperature controller
Electrical Requirements (Voltage is customized to destination country)	50 Place : 10.5kW, 3 phase 100 Place : 15kW, 3 phase 168 Place : 24kW, 3phase
Approximate overall dimensions with door open	50 Place—1785mm high x 695mm wide x 830mm deep 100 Place—1895mm high x 1120mm wide x 975mm deep 168 place—1790mm high x 1310mm wide x 1075mm deep

Gas (LPG & NG) and Diesel (25 place and 50 place)

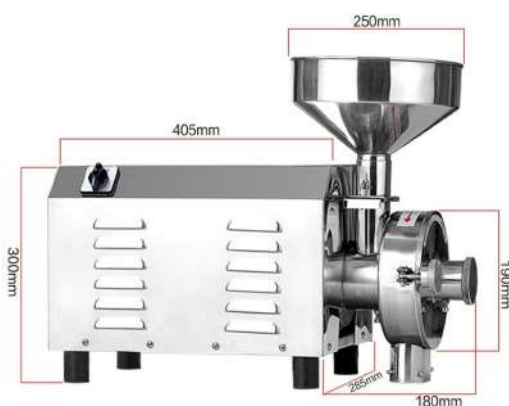
Construction	Cabinet of 5 mm zinc anneal steel lined with insulating firebrick. Backed with Superwool insulation board.
Muffle Dimensions	25 place—400mm high x 600mm wide x 680mm deep 100 place—400mm high x 1200mm wide x 680mm deep
Flame Supervision	LPG : Landis & Gyr LME 44 Flame Controller & U.V. Cell NG & Diesel : Landis & Gyr LFL1.635 & Flame Controllers
Door Operation	50 Place : Counter-balanced, rising 100 Place : Pneumatic rising, Operated by foot control
Temperature Control	Electronic, Automatic control 1200C, type "K" Thermocouple
Electrical Requirements	The furnace is fitted with a 10 Amp single phase cord and plug top. Electrical load : 5 Amps
Approximate overall dimensions with door open	25 Place—1960mm high x 1320mm wide x 1450mm deep 100 Place—1960mm high x 1790mm wide x 1450mm deep



Double Roll Crusher

Spesification :

Produk	: Lokal - Assembling BSA
Power Souece	: Geared motor, 3 Phase, 3 kW
Output	: 260 Rpm
Rolls	: Diameter 10" x Length 6"
Dimensions	: L.120 x W. 1000 x H. 142 cm



Coffee Grinder Mill HR 1500

Spesification :

Model	: GRM1500
Capacity	: 20-40Kg/h
Fitness	: 50-180mesh
Speed	: 1500 r/min
Power	: 2HP, 1.5KW, 100-240V/50Hz
Machine Size	: 60*28*41.5cm
Packing Size	: 71.5*34.5*35cm
N.W.	: 45Kg/G.W.:50Kgs



Riffle Splitter

Spesification :

Feed Material	Bulk materials
Material Feed Size	Slot width adjustable 12 / 24 / 36 / 48 / 60 / 72 / 84 / 96 / 108 mm
Feed Quantity	Max 30 L
No. Divisions	2
W x H x D	72 x 70 x 46 cm

BESTECH INSTRUMENT

Hammer Crusher with Screw

Spesification :	
Power Source	: 7.5 Hp , 10 KW, 3 Phase
Screw Conveyor	: Speed reducer 0.5 HP / 350 Watt 3 Phase, Ratio 1 : 40
Hammer Blade	: 2 pcs Made of Hardener Special Steel
Dimension Screen Dimensions	: 120 cm x 60 x 85 (H X W X L) cm Output 16 mm L x W x H (125 x 75 x 140) cm



Hammer Mill / Crusher

Spesification :	
Power Source	: Electromotor 3 phase 5.5 Hp/4 Kw / 4 pole
Electricity	: 220 - 380 / 50 Hz
Jaw Face	: Two pieces made of hardened iron steel
Capacity	: Setting Coal Size Capacity/hour <3/8" 1000kg <1/4" 750 kg < 1/8" 600 kg <1/16" 450kg
Dimension	: 120 cm x 60 x 85 (H X W X L) cm



Jaw Crusher

Spesification :	
Power Source	: Electromotor 3 phase 5 Hp/4 Kw
Electricity	: 220 - 380 / 50 Hz, 4 pole
Jaw Face	: 5/8 " made of hardened iron steel
Capacity	: Max. 1000 kg / hour
Dimmension	: 120 cm x 60 x 85 (H X W X L) cm



Rotary Sample Divider

Spesification :	
Capacity	: 150 kg (8 segmen)
Komponen	: Kombinasi Import + Lokal
Panel	: Electric & Adjustable Vibrator Controller
Motor	: 2 HP 1 Phase 220 V AC, 4 pole 50 Hz.
Turn Table	: 40 rpm
Capacity	: 30 / 60 / 100 / 120 / 150 kg (8 pcs segment made of Stainless Steel)



Raymond Mill Pulvurizer

Spesification :	
Power Source	: Electromotor 2 HP/1.5 Kw
Electricity	: 3 phase, 380 Vac 50 Hz/2 pole
Mill Rotational	: 7000 rpm
Hammer Blade	: 8 pcs made of steel high grade
Screen Size	: 0,58 mm perforation
Product Size	: 212 Um
Dimension	: 106 x 46 x 68 (L X W X H) cm



Rotap Sieve Shaker

Spesification :	
Power Source	: Motor 2 HP /1,5 Kw, 220 Vac, 50 Hz
Circular Motion	: 246 rpm
Topping Motion	: 65 Taps/min
Capacity	: 6 sieve + pans
Diameter Sieve	: Sieve Dia. 8"
Weight	: 120 Kg
Dimmension	: 90 H x 45 D x 105 W (H X D X W) cm



Rotap Sieve Shaker Model WS Tyler

Spesification :	
Power Source	: Electromotor 0.5 HP, 0.37 kW, 220Vac
Motion	: Circular 246 RPM, Taps 65 Taps / min
Capacity	: 6 sieves
Dimmension	: L.105 x W. 45 x H. 90 cm



HGI MACHINE

Spesification :	
Power Source	: Geared Motor, 0.5 HP / 0.4 Kw / 220 Vac
Electricity	: 220 V / 50 Hz
Rotational	: 20 rpm
Ball Grinder	: 8 pieces Steel Ball dia. 1"
Diameter Sieve	: Sieve Dia. 8"
	: Complete with digital preset counter and three optional loader
Dimmension	: 65 x 50 x 50 (L X W X H) cm



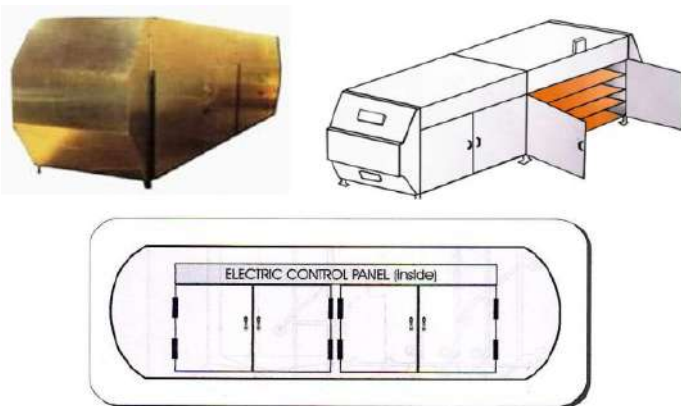
BESTECH INSTRUMENT

Specification	
Capacity	: Approx. 1 Ton
Temp. Max	: Max 200 °C
Dimensi	: P x L x T (200 x 180 x 180) cm
Bahan Lantai	: Alumunium plate borders
Pintu	: Model 1 / 2 daun pintu
Body Material	: Plat esser tebal 1,5 mm
Rangka Pintu	: Hollow 3 x 2 cm, tebal 2 mm
Rak Oven	: Model trolly 9 tingkat (2 unit)
Bahan	: Steel hollow 4 x 4 cm, tebal 2 mm
Road Caster	: Steel diameter 2,5 inch
Heater Model	: Heater Element Udara
Kapasitas	: 6 KVa, 380 V, 3 Phase
Isolator	: Ceramic Wool
Temp. Control	: Digital controller
Pan capacity	: 40 Pcs aluminium plate
Pan Size	: 50 x 30 cm, Tebal 1 mm

Big Drying Oven with Trolley



Big Drying Shed Oven



Spesification	
Blower	: Electromotor 1 HP, 220 V, 50Hz
Dimension	: 550 x 120 cm x 180 cm (P x L x T)
Temperature Operation	: 60 oC Digital Temp Controller
Heater Element	: 3 x 2000 Watt
Thermocouple	: Type K
Pan Capacity	: 40 pcs pan
Besi Rangka	: Stall Bar / Pipa Persegi

Drying Oven ASTM

Spesification	
Power source	: 2 Kw, 220 V, 50 Hz
Maximum Temperature	: 60 ° C
Heating Element	: Finned Heater 2 x 1000 watt
Blower	: 300 W
Controller	: Digital Temp. Controller
Capacity	: 8 Rak, Size 50 x 50 x 5 (cm)
Dimension (cm)	: 130 W x 80 D x 240 H



BESTECH INSTRUMENT

Dust Collector

Dust collector merupakan salah satu air pollution control system yang berfungsi untuk mengontrol polusi udara pada area industri untuk memenuhi persyaratan keselamatan lingkungan dan tempat kerja. Sistem menggunakan baghouse / bag filter) untuk menyaring dan menampung debu/partikel.

Spesification

Dimensi :

- Body Dust Collector (PxLxT) : 120 x 120 x 450 cm
- Kaki Dust collector (PxLxT) 130 x 130 x 200 cm

Body Material :

- Steel plat esser tebal 3 mm
- Steel L (siku) 50 x 50 x 5 mm
- Steel L (siku) 100 x 100 x 5 mm
- Steel hollow 40 x 40 x 2 mm
- Steel tube 1 1/4"
- Steel tube 4"

Komponen terdiri dari :

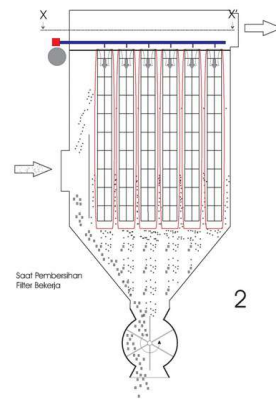
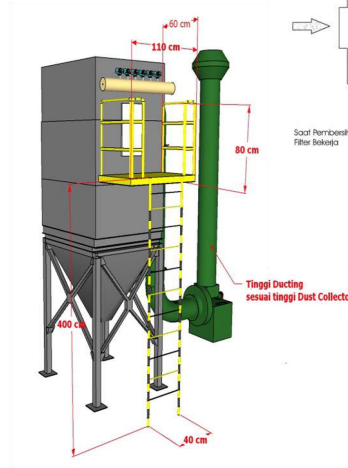
- Filter bag 30 buah / Mesh 200
- Pipa medium 1/2"
- Selenoid valve 3/4" qty 6 buah
- Tabung selenoid 4" Panjang 100 cm

Panel terdiri dari :

- Panel control otomatis qty 1 unit
- Electromotor blower 20 HP, 15 Kw, 380 Volt

Spesifikasi Blower :

- Pressure : 15000 - 16500 m/h
- Air Speed : 60 - 70 m/sec
- Dia Impeller : 65 cm
- Dia Outlet : 35 cm
- Speed rotasi 2900 Rpm



Skema Ducting Dust Collector



Fume Hood



Wet Scrubber



Features :

1. Efisiensi yang sangat baik
2. Body dan pipa ducting material PVC tahan korosi
3. pH Controller online secara otomatis
4. Polypropylene Blower tahan korosi
5. Menggunakan filter dan bola scrubber
6. Menggunakan magnetic pump chemical resistant

Spesification

Outer Dimension	1300 x 800 x 2400 1500 x 800 x 2400 1800 x 800 x 2400
Internal lining	Phenolic resin Epoxy resin
Outer Lining	Epoxy Coating
Work Top	Phenolic resin, Epoxy resin
Sliding Door	Tempered Clear Glass 5mm thickness
Wall Material	PVC Structure with Epoxy Coating
Accessories	Switch blower, indicator led lamp, fluorescent lamp, switch lamp, electrical socket, sink, water fitting

Spesification

Dimensi Standar	: 700 x 700 x 2.000 mm
Body material	: PVC
Spray Nozzle	: PVC
Sirkulasi Air	: 1.11 / menit pada 20 psc
Blower Motor	: 0.75- 1.1 HP, 220VAC, 2900 rpm
Impeller	: Polypropylene
Ducting	: Pipa PVC 6 - 8 inch
Controller	: Switch on/off lamp, blower, pompa sirkulasi, pH controller,



Rocklabs BOYD Elite

Rocklabs BOYD Elite delivers the maximum amount of crushing, reducing samples by 35 times the original size. Jaws can hold up to 5kg of sample

- 70mm sample can be crushed to 2mm in a single pass.
- Jaw gap can be easily adjusted and wear plates can be rotated
- Safety switch stops operation on cover opening

Specifications :	
Motor power	: 5.5kW, 3 phase
Maximum input lump size	: 70mm
Product Size	: -2mm passing up to 90%
Width x Height x Depth	: 694 x 1330 x 1070mm
Weight	: 520kg
Jaw Width	: 300mm
Wear Plates	: High Chrome Iron

Rocklabs Smart BOYD Elite RSD S-PLIT



BOYD Elite RSD S-PLIT Featuring top and bottom moving jaws Jaws can hold up to 5kg of sample 70mm sample can be crushed to 2mm in a single pass, the design of the Rocklabs BOYD Elite delivers the maximum amount of crushing, reducing samples by 35 times the original size.

Specifications	Details
Motor power	: 5.5kW, 3 phase
Max input lump size	: 70mm
Product Size	: -2mm passing up to 90% (sample size dependant)
Width x Height x Depth	: 694 x 1330 x 1070mm
Weight	: 520kg
Jaw Width	: 300mm
Dust Extraction	: Superior Dust Removal (2 ports) and containment
Options	: Raiser Platform, Mechanical bin lifter, RSD, Smart RSD and Smart LSD
Wear Plates	: High Chrome Iron

Rocklabs Smart BOYD RSD



The Rocklabs Smart BOYD RSD combo integrates the BOYD RSD combo with a balance and a Programmable Logic Controller (PLC), to control the splitting of the sample. This provides an accurate and consistent split weight regardless of the sample input weight and ensures that the pulveriser receives the optimum weight of the sample

	BOYD Crusher	Rotating Sample Divider
Motor power	5.5kW, 3 phase	0.18kW, 3 phase
Maximum input lump size	70mm	10mm
Product size	-2mm (+80%)	n/a
Width x Height x Depth	694 x 1440 x 1070mm	500 x 739 x 741mm
Weight	610kg	95kg
Jaw width	300mm	n/a
Dust extraction	2 extraction ports available	1 extraction port available

Rotary Sample Divider

The RSD series **Automatic Rotary Sample Divider** is widely used in coal, metallurgy, chemical industry, geology, building materials, environmental protection, third-party inspection, scientific research institutes and other industries

Technical Parameter:

Model	YX-RSD20	YX-RSD30	YX-RSD 40	YX-RSD60	YX-RSD90
Voltage	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz
Power	1.5KW	1.5KW	1.5KW	2.5KW	2.5KW
Bucket Volume	20L	30L	40L	60L	90L
Bucket Quantity	8	8	8	8	8
Dimension (mm)	800x410x900	920x460x1020	1000x550x1200	1160x600x1280	1680x830x1550



Desktop Rotary Sample Divider



Product Features:

- ◆ Made of stainless steel;
- ◆ Vibrating feeder;
- ◆ Stepless speed regulation;
- ◆ Full Open Design

Technical Parameters:

Model	: YX-RSD05
Voltage	: 220v/50Hz
Power	: 1.5KW
Bucket Volume	: 5L
Bucket Quantity	: 10
Dimension (mm)	: 700x410x740

Crucible Mixer



- ◆ Flux mixer, also called crucible mixer or crucible blender, is mainly used to mix fusion samples and flux during fire assay.
- ◆ The rotation of mixer is driven by gear motor, which enables material inside crucibles to rotate and flip and be fully and evenly mixed. And the worm gear reducing mechanism offers fast mixing time and adjustable mixing speed

It is suitable for YAC0355/YAC0430 and other crucibles

Model	Crucible Loading QTY	Voltage	Power	Mixing Speed	Mixing Mode
YX-CM25	25	220V/50Hz	1.5kW	10-60 Rpm/min	Forward and reversal rotation
YX-CM50	50	380v/50Hz	1.5kW		

Workstation

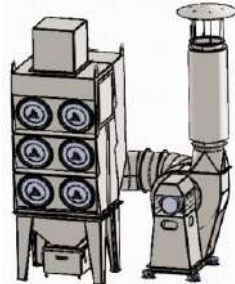


This workstation could be used for sample preparation areas and fire assay flux mixing. The combination of lead assaying and cupellation technology can make the precious metals in tens of grams of sample concentrate in several milligrams of composite particles. In the lead assay, the capture rate of Au is more than 99%, and the recovery rate of Au as low as 0.2-0.3g/t is still very high. The accuracy of lead assay for the analysis of constant and trace precious metals is very high.

PULSE DUST COLLECTOR



Model	YXM-7000RH
Wind Volume	10562m³/h
RPM	2900 r/min
Wind Pressure	2554 Pa
Filter Area	120m²
Filter Cartridge QTY	6



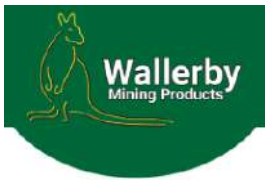
- ◆ Equipped with an integrated centrifugal fan, with high suction power and stable operation;
- ◆ Good sealing performance, less floor space;
- ◆ Different dusts are matched with filter cartridges of different materials;
- ◆ Automatic dust-removing device is equipped to regularly remove dust attached to the filter

CUPEL

Model	TOD "D"	BOD "B"	TID "D1"	Height "H"	Top Height "H1"	Depth "C"	Net Weight (g)	PCS/Box	Box Size (mm)
2x	24	19	18	17	4.5	8	13	1040	34x22x22
3	26	20	23	20	8	5.5	17	864	34x22x22
4	29	23	24	22	8	6	20	466	30x30x15
5	35	26	27	26	6.5	8	35	378	34x22x22
6A	40	30	30	26	6	12	62	200	34x22x22
7A	40	30	30	32	10	12	72	200	34x22x22
7AS	40	30	32	32	10	15	62	200	34x22x22
8A	45	37	38	35	13	13	103	200	38x24x21
8AM	45	37	33	35	15	12	110	200	38x24x21
9	51	43	40	30	5	11	120	120	34x22x22
9A	51	39	40	34	14	15	123	120	34x22x22
11	56	46	46	37	11	14	166	100	34x22x22
Z27	27	27	23	23	/	10	29	500	30x30x15
Z40	40	40	32	30	/	15	73	200	34x22x22

Fire Assay Consumables





Coal Grinder

The Wallerby Mining Products Coal Grinder consists of two rotary grinding plates capable of sizing coal samples of 4mm top size to a controlled smaller given size with the minimum of fines.

The machine has been designed and manufactured to conform to the Australian Standard. AS.4264.1 It is powered by a 240 volt drive and complies with the correct speed of 200rpm.



Swing Hammer Mill Grinder

The main function of the mill is to handle -50mm top size wet coal reducing it to -4mm to -6mm top size product. Swing Hammer Mill is made of quality steel steps and wheels to move.

The main feature of this mill is high production output with small dust emission, both in terms of safety there are drop down doors, safety cut-off switches, and locking systems.



Rotary Sample Divider

Our Rotary Sample Divider (RSD) is available in a range of sizes from 5 litres through to 200 litres. The 10 litre to 200 litre capacity models are constructed from RHS tubing and fitted with heavy duty castors, offering a light strong maneuverable machine.

The hopper, feeder tray, segments, guard and bin are manufactured from 304 grade stainless steel.

Hardgroves Grindability Machine

Features Include

- ◆ Complies with AS 1038. Part 20
- ◆ 240 volt motor
- ◆ Automatic counter and reset
- ◆ Hardened bowl and cap
- ◆ Totally enclosed drive system
- ◆ End of cycle warning and automatic reset system





RX 29 Rotap Sieve Shaker

Specification	
Testing Applications	2" down through 635 mesh (20 micron)
Oscillations per Minute	278±10
Oscillations Displacement	1-1/8" x 7/16"
Taps per Minute	150±10



RX-94 Duo Model

Specification	
Oscillations per Minute	278±10
Oscillation Displacement	1-1/8" x 7/16"
Taps per Minute	150±10
Hammer Weight	5 lbs., 6 oz.



RX-29-E and RX-30-E Models

The RO-TAP® Electronic Test Sieve Shaker operates with 8" or 12" diameter Test Sieves and offers precise sieving results.

The compact, RO-TAP RX-29-E (8" Test Sieves) unit requires minimal space on a laboratory countertop. The RO-TAP RX-30-E (12" Test Sieves) model is a floor unit.

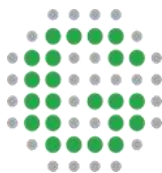


RX-812 Coarse Sieve Shaker

Designed to be used in coarse testing applications, the affordable RX-812 Coarse Sieve Shaker has the unique capability of using both 8" diameter and 12" diameter test sieves, simply by using the quick-change adaptors provided. The RX-812 has a quiet operation and utilizes an effective action that gives consistent, accurate results.

- Designed for use with 8" and 12" diameter Test Sieves.
- For analysis of particles US #100 (150um) and larger*.
- Oscillating movement only.
- Supplied with adaptor for 8" and 12" Test Sieves.
- Oscillations per Minute: 280 (60Hz); 231 (50Hz).

***Not recommended for analysis with particles 150 micron (100 mesh and finer) and smaller.**



Glenammer is the leading laboratory test sieves manufacturer in the UK, helping customers throughout the world achieve the finest and most accurate samples. We have a simple philosophy – to produce the highest quality of test sieves, backed up with excellent customer service. We are passionate about our products and strive for perfection.

This means we are constantly innovating. The design of our sieving equipment has undergone radical changes since we were established 20 years ago, and we now provide high-end products to a range of industries and laboratories worldwide, where particle analysis is key and the most exacting standards are required.

All our products comply with ISO3310 European Standards, ASTM American Standards, and equivalent worldwide technical body standards

Woven Wire Sieves

Using the finest mesh to make the best quality sieves and manufactured to the most stringent engineering standards.



Perforated Sieves

Zinc plated mild steel plate. (Round or square hole available)

Using the finest mesh to make the best quality sieves and manufactured to the most stringent engineering standards.

Coffee Bean Sieves

Round hole perforated plate sieves with sizes measured in 64th inches.

Used to grade coffee beans, these sieves are manufactured with a round hole stainless steel perforated plate with a stainless

Wet Washing Sieves

Deeper than Usual. 300mm diameter can be 150mm, 225 mm or 300mm deep. All others can be 100 mm or 200mm deep

Manufactured with an extra deep frame, making it easier to separate fine samples with liquid and avoid particles sticking each other.



International Standard	Woven Wire		Perforated Plate		American Standard			
	B.S. 410 / I.S.O.3310 Part 1	B.S. 410 / I.S.O.3310 Part 2	B.S. 410 / I.S.O.3310 Part 2					
	mm	µm	mm		ASTM E11			
	125	9.5	900	90	125	5.00 in	850	No. 20
	112	9	850	80	106	4.25 in	710	No. 25
	106	8	800	75	112	4 in	500	No. 30
	100	7.1	710	71	106	3 1/2 in	500	No. 35
	90	6.7	630	63	100	3 in	425	No. 40
	80	6.3	600	58	90	2 1/2 in	355	No. 45
	75	5.6	560	53	80	2 1/2 in	300	No. 50
	71	5	500	50	75	2 in	250	No. 60
	63	4.75	450	45	71	1 3/4 in	212	No. 70
	56	4.5	425	40	63	1 1/2 in	180	No. 80
	53	4	400	38	56	1 1/4 in	150	No. 100
	50	3.55	355	36	53	1 06 in	125	No. 120
	45	3.35	315	32	50	1 in	105	No. 140
	40	3.15	300	25	45	7/8 in	90	No. 170
	37.5	2.8	280	20	40	3/4 in	75	No. 200
	35.5	2.5	250		37.5	5/8 in	63	No. 230
	31.5	2.35	224		35.5	0.530 in	53	No. 270
	28	2.24	212		31.5			
	26.5	2	200		28			
	25	1.8	180		26.5			
	22.4	1.7	160		25			
	20	1.6	150		22.4			
	19	1.4	140		20			
	18	1.25	125		19			
	16	1.18	112		18			
	14	1.12	106		16			
	13.2	1	100		14			
	12.5				13.2			
	11.2				12.5			
	10.0				11.2			
					10			
					9.5			
					9			
					8			
					7			
					6.7			
					6.3			
					5.6			
					5			
					4.75			
					4.5			
					4			



Sieve Shakers Series

Glenammer offers a range of durable sieve shakers, each manufactured to suit different requirements and varying budgets. They are made with various motors, including a traditional mechanical timer, a digital timer, and an electromagnetic and 3D electro magnetic motor. Glenammer sieve shakers are durable and easy to operate and there is no maintenance required. We provide sieves shakers for the full range of diameter test sieves from 100mm diameter to 450mm diameter.

SQ Variable



Capacity 8 X 200mm Dia. (100mm, 150mm, 3" and 8") sieves plus lid and receiver. 6 X 300mm Dia. (12" 315mm) sieves plus lid and receiver. Extended rods available.	Height 140mm	Net Weight 20Kg
Max sample weight 3Kg	Timer Digital: 0sec - 99mins 59secs	Electrical Supply 230 Volt, 1ph, 50 Hz, Input power 0.045 kw, current 0.20 amps
Speed 3,000/min at 50 Hz	Type 8 x 200mm dia (100mm, 150mm, 8") sieves plus lid and receiver	Sieve Motion Electromagnetic
Net W x H x D 240mm x 140mm x 240mm		

Capacity 8 X 200mm Dia. (100mm, 150mm, 3" and 8") sieves plus lid and receiver. 6 X 300mm Dia. (12" 315mm) sieves plus lid and receiver. Extended rods available.	Height 140mm	Net Weight 17kg
Max sample weight 3Kg	Timer Analogue: 0 - 60min	Electrical Supply 230 Volt, 1ph, 50 Hz, Input power 0.045 kw, current 0.20 amps
Speed 3,000/min at 50 Hz	Type 8 x 200mm dia (100mm, 150mm, 8") sieves plus lid and receiver	Sieve Motion Electromagnetic
Net W x H x D 240mm x 140mm x 240mm		

SQ Analogue



SQ Digital



Capacity 8 X 200mm Dia. (12"mm, 315mm) sieves plus lid and receiver. Extended rods available.	Height 150mm	Net Weight 22Kg
Max sample weight from 4.5Kg - 6Kg	Timer Digital: 0sec - 99mins 59secs	Electrical Supply 220 Volt, 1 ph, 60 Hz, Input power 0.045 kw, current 0.75 amps
Orbital Action Approx up to 350 oscilations per minute	Sieve Motion Vibratory	
Net W x H x D 400mm x 200mm x 400mm		

Vibrator Shieve Shaker SS2000



SS2000 is used to batch sieve the solid particle or powder samples. Its electromagnetic drive system guarantees the result is achieved not only in a very short time but also accurate and repeatable. It can perform dry sieving and wet sieving for samples and most parameters can be digital preset. The devices are maintenance free and operation is very quiet.

- **Working Principle**

The model SS2000 adopts electromagnetic drive system which generates unique three-dimensional motion to throw samples, that makes the samples distribute evenly on the whole sieve. Intermittent vibration can improve sieving effects and guarantee sieving holes are free from blocking

- **Application**

SS2000 applies for all the inorganic and organic compounds including the sand, rocks, clay, granite, feldspar, coal, soil, grains, seeds and all kinds of solid particles

Two Kinds of Clamping Devices



Standard clamping device



Comfort clamping device and handle

Features and Advantages

- ◆ Digital setting, all sieving parameters can be preset, simple operation
- ◆ Dry, wet sieving.
- ◆ Reliable, repeatable and high efficient sieving result
- ◆ Low noise, maintenance-free.
- ◆ Unique sieving with 3D motion, high accuracy.
- ◆ Intermittent mode can be selected.
- ◆ It can be connected to the computer and controlled by the screening software to perform data processing and analysis, screening evaluation.
- ◆ LED 5 inch touch screen, intelligent control, convenient operation.

TECHNICAL DATA

Measuring range	20µm-25mm	Parameter combinations that can be stored	9
Amplitude adjustment range	0.2-3.0mm	Max. mass of sieve stack	3Kg
Time setting	01-99min	Rated power	400W
Interval operation adjustment range	10-99%	Power supply	220V,50Hz
Drive /sieving mode	electromagnetic drive	Instrument size (W*D*H)	400*480*240mm
Electromagnetic drive	9	Package size (W*D*H)	620*620*490mm
Sieve diameters	100/150/200/203mm (8")	Net weight	43Kg

Rotary Sample Divider RSD200



The RSD200 can evenly divide one sample to 6, 8, 10 uniform small samples. Each small sample has the same physical and chemical properties, and can represent the attributes of the whole batch of samples. Currently, the divider is the most accurate sample dividing device on the market

- **Applications**

Engineering/electronics, building materials, agriculture, pharmaceuticals, chemical/synthetic materials, metallurgical, geological/environment/ resources recycling, glass/ceramics, biological, food.

- **Working Principle**

Samples enter a taper-shaped rotating pipe via the feed hopper of the vibratory feeder. The rotating pipe rotates at a constant speed; samples move to the channels under the effect of centrifugal force and are collected inside the containers outside the above channels. The samples in all containers have the same physical and chemical properties.

PRODUCT PARAMETERS

Feed size	<10mm	Rated power	40W
Speed adjustable range	80~120rpm	Power supply	220V,50Hz
Time setting range	1min~999min	Instrument size (W*D*H)	460*456*850mm
Number of divisions	6/8/10	Package size(W*D*H)	590*590*(630+350)
Volume of container	100/250/500ml	Weight	30kg

Features and Advantages

- Extremely high division accuracy
- The parameters are digital and can be preset
- Maintenance-free
- Wide range of the sample bottle volume
- Easy collection and cleaning

Feed size	< 10 mm	Rated power	100W
Speed adjustable range	80-120rpm/min	Power supply	220V,50Hz
Time setting	00:01~99:59(h/min)	Instrument size(W*D*H)	460*456*850mm
Number of divisions	6/8/10	Package size(W*D*H)	590*590*630mm
Volume	100/250/500ml	Net weight	43Kg

Vibrator Feeder VF100



Vibratory Feeder VF100 is designed to facilitate automatic sample feed for bulk particle or fine powder samples. It can be used in conjunction with the Sample Divider RSD200 and Ultra Centrifugal Mill FM200 produced by Grinder Company

• Applications

cement clinker, chemicals, coffee, construction materials, fertilizers, fillers, flours, grains, metals powders, minerals, nuts, plastics, sand, seeds, soils, washing powder etc

• Working Principle

Samples fall to the vibrating chute via the feed hopper. By adjusting the vibration frequency, the speed of samples (namely sample feed speed) on the vibrating chute can be changed. Finally, the samples fall to the target device for next step processing.

Features and Advantages

- ◆ Strong drive for even material feed
- ◆ Digital speed and time setting
- ◆ Compact control and feed unit
- ◆ Easy cleaning of the push-fit chute

TECHNICAL DATA

Feed Size	<12mm	Rated Power	40W
Speed Setting	0-50	Power Supply	220V.50Hz
Time Setting	01-99 min	Instrument Size (W*D*H)	274*244*330mm
Width of the chute	75/40mm	Package size (W*D*H)	590*590*350mm
Hopper Volume	2.2.1	Net Weight	11.5Kg

Vibrator Feeder VF200



Vibratory Feeder VF200 is designed to facilitate automatic sample feed for bulk particle or fine powder samples, it can be used in conjunction with the sample divider RSD200 or Ultra Centrifugal Mill Centrifugal Mill FM200 produced by POWTEQ company

• Applications

Engineering/electronics, agriculture, pharmaceuticals, chemical/synthetic materials, metallurgical, biological, food

• Working Principle

Samples fall to the vibrating chute via the feed hopper. By adjusting the vibration frequency, the speed of samples (namely sample feed speed) on the vibrating chute can be changed. Finally, the samples fall to the target device for next step processing.

Features and Advantages

- ◆ Feed speed can be adjusted continuously
- ◆ Easy Installation and operation
- ◆ Stable, uniform, feeding
- ◆ Easy Cleaning of push-fit feed chute
- ◆ Parameters are digital and can be preset

TECHNICAL DATA

Feed Size	<10mm	Rated Power	15W
Speed	80-120rpm	Power Supply	220V.50/60Hz
Time Setting	1-999 min	Instrument Size (W*D*H)	465*490*620mm
Number of division	6/8/10	Package size (W*D*H)	620*620*770mm
Volume	10/25/50/10/2 50/100ml	Net Weight	30Kg

Sample Splitter SD6.5&SD12.5



• Applications

cement clinker, chemicals, coffee, construction materials, fertilizers, fillers, flours, grains, metals powders, minerals, nuts, sand, seeds, soils, washing powder.

• Working Principle

When using the splitters to divide samples, the samples can evenly fall to sample splitting slot. The sample splitting slots designed in a cross way, so samples fall to the two underneath sample receiving container respectively. The quantity of samples can be haved by performing one sample separation. You can repeat such operations until the quantity of samples meets your test requirements

Technical Data	SD 6.5	SD 12.5	SD 25	SD 37.5
Feed size	Approx 4mm	Approx 8mm	Approx 26mm	Approx 25mm
Feed sample volume	3 liters	3 liters	16 liters	16 liters
Notch size	6.3mm	12.5mm	25mm	37.5mm
Notch number	12	18	16	
Dimension	440*250*320 mm			
Net weight	3.5 Kg			

Automatic Infrared Sulfur Analyzer TR-DL802

Adopt Standard :

- GB/T25214-2010 "Determination of Total Sulfur in Coal-Infrared Spectroscopy" GB/T214-2007 "Determination of Total Sulfur in Coal"
- GB/T483-2007 "General Provisions on Coal Analysis Test Methods"
- GB/T387- 1990 "Determination of sulfur content in dark petroleum products"

Technical Parameter :

Measuring range : 0.01%~40% (can be expanded according to user requirements)
 Test method : infrared spectroscopy absorption method
 Sulfur measurement resolution: 0.001%
 Working furnace temperature: 1300℃
 Temperature control accuracy: ±1℃
 Sample mass: 300±10mg (coal, coke), 100±10mg (petroleum products)
 Sample delivery method: automatic sample delivery, sample abandonment
 Number of samples: 12/batch, samples can be added/replaced during the test
 Single sample analysis time: about 3min

Accuracy: In line with GB/T25214-2010 "Infrared Spectrometry for Determination of Total Sulfur in Coal"
 Power: ≤4kW Working power supply: AC220V±22V/50Hz , Dimensions (mm): 670×580×720, Weight(kg): 87



Full Automatic Infrared Sulfur Analyzer, TR-DL810

Adopt Standard :

- GB/T25214-2010 "Determination of Total Sulfur in Coal-Infrared Spectroscopy"
- GB/T214-2007 "Determination of Total Sulfur in Coal"
- GB/T483-2007 "General Provisions on Coal Analysis Test Methods"
- GB/T387-1990 "Determination of sulfur content in dark petroleum products"
- AS 1038.6.3.3, ASTM D1552, ASTM D3177, ASTM D4239, ASTM D5016, ISO 19579, GB/T 25214, GB/T 28732, BS 1016

Technical Parameters :

Measuring range	: 0.01% ~ 40% (can be expanded according to user requirements)
Test method	: infrared spectroscopy absorption method Sulfur measurement resolution 0.001%
Working furnace temp.	: 1300℃ Temperature control accuracy: ±1℃
Sample weight	: 300±10mg (coal, coke) recommended 200±10mg, 100±10mg (petroleum products)
Sample delivery method	: automatic sample delivery and sample drop
No. of samples	: 70 samples can be placed at a time, cyclic stakeout, add, delete, and insert test
Precision	: in line with GB/T25214-2010 Determination of Total Sulfur
Accuracy	: Within the uncertainty range of the standard sample
Power	: ≤4KW
Working power supply:	: AC220V±22V/50Hzq
Dimension (mm)	: 1240 × 660 × 6



Application :

Suitable for power plants, coal mines, commodity inspection, environmental protection, geological exploration, metallurgy, papermaking, chemical industry, scientific research, education and other departments to determine the total sulfur content of coal, coke, petroleum

Automatic Proximate Analyzer, TR-FX7706



Application Area :

It is applicable in the industry such as electrical power, coal, commerce inspection, environment protection, metallurgy, papermaking, petrochemical, earth probe and the research institute or quality inspecting organization to test the content of air-dry basis moisture, ash, LOI, and Volatile Matter in the coal. The instrument can also automatically calculate Calorific Value and the content of fixed carbon and hydrogen in the samples.

Technical Parameter :

Temperature control range	: RT+10~1000℃
Temperature control accuracy	: ±2℃
Sample weight	: 0.5~1.2g 1±0.1g is recommended
Sample number	: 20samples/time
Testing time	: 180min/20samples(classic method), 100 min/20samples(quick method)
Power Supply	: AC 220V±22V/50Hz
Power	: ≤6kW 7706A
Dimension(mm)	: 630 × 560 × 580 Weight (kg) : 90 7706B
	: 560 × 560 × 750 Weight (kg) : 80

Auto Ash Fusion Tester (Auto) TR-TCRD4000



Application Area :	Conformance to Standards
It is used in electric power, coal, metallurgy, petrochemical, coal chemical, environmental protection, cement, papermaking, geological prospecting, scientific research institutes and other industries to determine the melting process of coal ash and other non-single compounds with no fixed melting point.	ISO540 (2004) - Hard Coal and Coke - Determination of Ash Fusibility ASTM D1857 - 04 Standard Test Method for Fusibility of Coal and Coke Ash AS 1038-1995, ASTM D1857/D1857M/ E935/935M, ISO 540,

Technical Parameter :

Number of samples: 1~5
 Temperature control range: 200□~1650□
 Temperature control accuracy: ±1□
 Experimental atmosphere: oxidizing, weak reducing (carbon sealing method)
 Heating speed: meet the requirements of national standard
 Repeatability: DT≤40, ST, HT, FT≤30
 Power supply: ≤2.7kW, AC 220V±22V/50Hz
 Dimensions (mm): 600×540×850

Full Automatic Moisture Analyzer TR-SF7340

Application Area :

It is used in power plants, coal mines, metallurgy, environmental protection, chemical industry, commodity inspection, scientific research, teaching and other departments to determine the content of total moisture and air-dry moisture in coal, coke and other substances.

Adopt Standard :

GB/T212-2008"Industrial Analysis of Coal"
 GB/T483-2007"General Provisions on Coal Analysis and Test Methods"
 GB/T30732-2014"Industrial Analysis Methods of Coal - Instrument Law"
 GB/T 211-2017"Method for Determination of Total Moisture in Coal"

Technical Parameters :

Temperature control range: RT+10~150□
 Temperature measurement resolution: 0.1□
 Temperature control accuracy: ±2□
 Sample weight: total moisture 10~12g (particle size≤6mm) air-dry moisture 1±0.1g (particle size≤0.2mm)
 Number of samples: 20 samples/time



Hradgrove Grindability Index Tester (HGI) TR-TCHG 60

Standards :

GB/T2565-1998 Coal HardgroveGrindability Index Determination Method ISO 5074:1994 Hard coal - Determination of HardgroveGrindability Index ASTM D409/409M, ISO 5074,

Application :

This instrument can be used to test the coal grindability by Hardgrove method. Hardgrove Grindability Index Tester is a special tester for testing the grindability of soft coal and blind coal. Takes grinding law as the theoretical basis (The energy consumed in coal grinding is proportional to the new surface area of coal dust).

Technical Specifications :

Spindle RPM (r/min): 20±1 Limited (r): 60
 Load Bearing Capacity (N): 284±2
 Motor Power: 90W
 Grinding bowl capacity (g): 50
 Ball diameter (mm): 25.4
 Dimension (mm): 512*323*564
 Weight (kg): 88
 Power Voltage (V): 220 (1-Phase) or (V) 380 (3-Phase)



Automatic Bomb Calorimeter TR-TCQ9302

LI-THERM 友欣®

Application Area :

Automatic Calorimeter is applicable in the industry such as electrical power, coal, papermaking, petrochemical, cement, farming, medical research, and instruction to measure the Calorific Value of combustible materials.

Adobt Standard :

ASTM D5865, ASTM D240, ASTM D4809, ASTM E711, ASTM D5468, AS 1038.5, BS EN 15400, BIS1350,ISO 1928, ISO 9831,ISO18125,GB/T 213,GB/T 30727

Technical Parameters

Calorimeter type	: Isoperibol
Measuring range	: 5 MJ/kg ~ 40 MJ/kg
Temperature range	: 5□~40□
Temperature resolution	: 0.0001□
Precision (Precision Mode)	: RSD ≤ 0.1%
Testing time	: 8 min
Power Supply	: 220V, 50/60HZ
Dimension	: 540mm×420mm×420 mm
Weight	: 45Kg



Full Automatic Bomb Calorimeter TR-TCQ9704

Application Area :

It is applicable in the industry such as electrical power, coal, papermaking, petrochemical, cement, farming, medical research, and instruction to measure the Calorific Value of combustible materials.

Adobt Standard :

ASTM D5865, ASTM D240, ASTM D4809, ASTM E711, ASTM D5468, AS 1038.5, BS EN 15400,BIS1350,ISO 1928, ISO 9831,ISO18125,GB/T 213,GB/T 30727



Feature :

CE Certificated
Real time and constant circulation system
support windows system
all process takes place with automatic
using USB for calorimeter control

Technical Parameters

Calorimeter type	: Isoperibol
Measuring range	: 5 MJ/kg ~ 40 MJ/kg
Temperature range	: 5□~40□
Temperature resolution	: 0.0001□
Precision (Precision Mode)	: RSD ≤ 0.1%
Testing time	: 8 min
Power Supply	: ≤1.5kw, 220V, 50/60HZ
Dimension	: 630mm×420mm×450 mm
Weight	: 55Kg

C/H/N Elemental Analyzer TR-CHN5510

Application :

It is suitable for power plants, coal mines, commodity inspection, environmental protection, geological exploration, metallurgy, papermaking, chemical industry, scientific research, education and other departments to determine the content of carbon,

Basic Parameter :

Carbon	: 0.005%~100%
Hydrogen	: 0.01%~60%
Nitrogen	: 0.008%~60%
Temperature control range	: RT+10~1050□
Temperature control accuracy	: ±1□
Sample Weight	: 80~100mg is recommended
Number of samples	39 samples/time



Standard :

AS 1038.6.4, ASTM D5373, ASTM D5291, ISO 16634, ISO 16948, ISO 29541, EN 15407,EN ISO 16948:2015-0, GB/T 30728, GB/T 30733, UNI 15104, UNI CEN/TS 15407

ISOKINETIK SAMPLER

Method: 5,17, 23, 26 and 29



All of the ESC isokinetic sampling systems consist of the following primary components: nozzle set, heated probe assembly with type "S" pitot and stack thermocouple, modular sample case with heated filter box and chilled impinger box, filter and glassware set, impinger outlet adapter with thermocouple, umbilical cable, metering console, rotary vane vacuum pump and suspension rail system.

The more advanced systems include a calibration orifice set, transport cases, professional multiple glassware sets, a cleanup and recovery kit, and probes and umbilical cables in a variety of lengths and styles



VARIOluxx

Semi-Continuous Portable Flue Gas Analyzer

O₂, CO, CO₂, NO, NO₂, SO₂, H₂S, C_xH_y as CH₄ or C₃H₈, and H₂

Standard features and functions

- ◆ Integrated and efficient Peltier gas cooler
- ◆ Automatic self-test of all internal hard- and software functions
- ◆ Graphical data visualization, CSV or PDF data reporting with data transfer to PC over LAN Ethernet (RJ45) or USB
- ◆ Standard emission and combustion calculation
- ◆ Complete fuel type list, including self definable fuel types
- ◆ Flue gas and combustion air temp., diff. pressure measurement



MEASURING RANGE	
O ₂ (EC)	0 ... 25,00 %
CO low (EC)	0 ... 500,0 ppm
CO (H ₂ comp) (EC)	0 ... 10.000 ppm
CO (IR)	0 ... 3.000 ppm
CO (IR)	0 ... 1,00 %
CO ₂ (IR)	0 ... 5,00 %
HC (CH ₄) (IR)	0 ... 3.000
HC (CH ₄) (IR)	0 ... 1,00 %
NO (EC)	0 ... 1.000 ppm
NO ₂	0 ... 200 ppm
SO ₂	0 ... 1.000 ppm
H ₂ S	0 ... 2.000 ppm

Dimensions and other data	
Operating system	LINUX
Display	7" TFT (800 x 480 px) colour display with touch operation
Data storage	10.000 data sets internal
Interfaces	Ethernet, WLAN, RS485
Dimensions	430 x 290 x 150 mm
Weight	appr. 7,5 kg

DELTA Smart

O₂, CO, NO_x



Smart power with:

- ◆ 3-gas measurement analyzer with O₂ - CO - NO_x
- ◆ Colour and backlit touchscreen, intuitive and easy to use
- ◆ Differential manometer and dual channel digital thermometer
- ◆ At least 10 programmed fuel types with 2 customizable fuels
- ◆ Internal data storage of up to 1000 measurement data sets
- ◆ Data interfaces included USB, Bluetooth™ and micro-SD

TECHNICAL SPECIFICATION :

PROGRAMMED FUEL TYPES

Natural gas, light oil, wood dry, pellets, and others

Measuring ranges :

Oxygen O ₂	0 ... 21,0 Vol %,
Carbon monoxid CO (H ₂ -comp.) (version B)	0 .. 4.000 ppm
Carbon monoxide CO (version E)	0...10.000 ppm
Nitric monoxide NO	0...1000 ppm
Flue gas temp	-40 ... +1.200 °C
Differential temp	-40 ... +1.200°C
Ambient air temp	0 ... 100 °C
Combustion air temp	0 ... 100 °C
Draught	± 50 hPa
Differential pressure	± 100 hPa (mbar)

OPTIMA 7 Handheld Multigas Analyzer

HANDHELD GAS ANALYZER UP TO 7 GAS SENSORS

Features :

- ◆ Super bright, colour 3,5" TFT-display with LED backlight
- ◆ Mini-USB for cable data transfer
- ◆ IRDA interface for high speed IR printer
- ◆ Integrated condensate trap with PTFE filter
- ◆ Menu guided software and function keys
- ◆ Robust stainless steel gas connectors



Program 1, Natural gas	
O2 %	0.09
CO2 %	8.40
CH4 %	0.05
NO ppm	0.1
NO2 ppm	1.1
NOx mg/Nm³ref3%O2	2
CO g/m³ref3%O2	0.00
stop store >clipboard	

Technical Specification



Measurement components	Range	Resolution
Oxygen O ₂	0 ... 25,00 Vol.-%	0,01 %
Carbon dioxide CO ₂ NDIR	0 ... 40,00 Vol.-%	0,01 %
Hydrocarbon HC NDIR	100 ... 40,000 ppm	10 ppm
Carbonmonoxide CO	0 ... 10.000/20.000 ppm*	0,01 ppm
Carbonmonoxide CO low***	0 ... 500 ppm	0,1 ppm
Carbonmonoxide CO very high	0 ... 40.000/100.000 ppm*	< 9.999 ppm: 1 ppm > 10.000 ppm: 10 ppm
Nitricmonoxide NO	0 ... 1.000/5.000 ppm*	1 ppm
Nitricmonoxide NO low***	0 ... 300 ppm	0,1 ppm
Nitric dioxide NO ₂	0 ... 200/1.000 ppm*	1 ppm
Nitric dioxide NO ₂ low***	0 ... 100 ppm	0,1 ppm
Sulfur dioxide SO ₂	0 ... 2.000/5.000 ppm	1 ppm
Sulfur dioxide SO ₂ low***	0 ... 300 ppm	0,1 ppm
Hydrogen sulfide H ₂ S	0 ... 500/2.000 ppm	1 ppm
Hydrogen sulfide H ₂ S low***	0 ... 100 ppm	1 ppm
Methane (CH ₄) NDIR	100 ... 40.000 ppm	10 ppm
Stack gas temperature T.Gas	0 ... 1.200 °C	0,1 °C
Combustion air temperature T.Air	0 ... 100 °C	0,1 °C
Temperature / Differential temperature T1/T2 (with thermocouple type K)	-40 °C ... 1.200°C	0,1 °C
Draught / Differential pressure	-300 ... +300 hPa	0,01 hPa

OPTIMA 7 BIOGAS BIOGAS ANALYZER THE MOST POWERFUL HANDHELD BIOGAS ANALYZER



Main features of the OPTIMA 7 BIOGAS analyzer

- Simultaneous measurements of up to 7 gas components
Biogas measurement: O₂, H₂S, CH₄ and CO₂ (infrared for CO₂/CH₄)
Emissions measurement: O₂, CO*, NO*, NO₂* and CO₂
Biogas pressure measurement (or stack pressure)
- Super bright, color 3.5" TFT display with LED backlight
- Sample preparation with condensate separator and with Teflon filter Intuitive menu guided software and function keys
- Internal data storage for up to 16,000 measurements!
- High energy Li-on battery (upto6-8hours) customizable screen settings
- IR Interface for external printer (printer is optional)
- Integrated SD card reader for additional data storage and data transfer to PC

BIOGAS components	Measuring range
CO ₂ Carbon dioxide	2 Gas NDIR 0...100%
CH ₄ Methane	2 Gas NDIR 0...100%
O ₂ Oxygen	0 ... 25.0 Vol.-%
H ₂ S Hydrogen sulfide	0 ... 200 ppm overload 2,000ppm *



Model : NOVAcompact

O₂, CO, NO, NO₂, NO_x, SO₂



This analyzer is mounted inside a small, rugged aluminium framed case (6.8 kg weight) and the technology inside the unit contains everything professional installers need to measure all fuel type combustions, including cogeneration heat and power engines.

TECHNICAL SPECIFICATION :

Measuring ranges :	
O ₂	: 0 ... 21,0 Vol %,
CO (H ₂ -comp.)	: 0 .. 4.000 ppm
CO High	: 0...20.000 ppm
NO	: 0...5000 ppm
NO ₂	: 0...1000 ppm
SO ₂	: 0...5000 ppm
Flue gas temp	: -40.. +1.200 °C
Differential temp	: -40.. +1.200°C
Ambient air temp	: 0 ... 100 °C
Differential temp	: -40 ... +1.200°C
Ambient air temp	: 0 ... 100 °C
Combustion air temp	: 0 ... 100 °C
Draught	: ± 50 hPa
Differential pressure	: ± 100 hPa (mbar)
CO ₂	: 0 ... CO ₂ max
Loss qA	: 0 ... 99.9 %
Effisiensi	: 0 ... 120 %

Model : NOVAplus

O₂, CO, NO, NO₂, CO₂, SO₂, H₂S,
HC as CH₄ or C₃H₈

Portable flue gas analyzer 8-gas
with wireless remote control RCU



The combination of infrared measurement technology and electro-chemical sensors ensures versatility and reliable analysis even of small measuring ranges.

TECHNICAL SPECIFICATION :

Measuring ranges :	
O ₂	0 ... 21,0 Vol %,
CO (H ₂ -comp.)	0 .. 4.000 ppm
CO low	0 .. 300 ppm (0.1 ppm)
CO high	0...20.000 ppm
CO very high	0...10 %
NO	0...5000 ppm
NO ₂	0...1000 ppm
SO ₂	0...5000 ppm
H ₂ S	0...2000 ppm
1-gas NDIR CO ₂	0...40,00 Vol %
2-gas NDIR CO ₂ /CH ₄	0...100 % / 0...100 %
3-gas NDIR	0...10.000ppm
- CO	0...3 % / 30%
- CO ₂	0...10.000ppm / 3%
- CH ₄ or	0...10.000ppm / 3%
- C ₃ H ₈	0...10.000ppm / 3%
Flue gas temp	-40 ... +1.200 °C
Differential temp	-40 ... +1.200°C
Ambient air temp	0 ... 100 °C
Differential temp	-40 ... +1.200°C
Ambient air temp	0 ... 100 °C
Combustion air temp	0 ... 100 °C
Draught	± 50 hPa
Differential pressure	± 100 hPa (mbar)



Heated hose sampling line



built-in high speed printer for graphical print-outs

contactless RCU charging (inductive)

easy-use interfaces: SD card and USB

SD card and data logging software



Functions of the NOVAplus

- Simultaneous measurements of up to 7 gas components!
Biogas measurement: O₂, H₂S, CH₄ and CO₂ (infrared for CO₂/CH₄)
Emissions measurement: O₂, CO*, NO* and CO₂
- Biogas pressure measurement (or stack pressure)
- Standard O₂ measurement with long-life cell (app. 4-5 years estimated)
- Super bright, color 3.5" TFT display with LED backlight
- Sample preparation with condensate separator and Teflon filter
- Intuitive menu guided software and functions keys
- Internal data storage for up to 16.000 measurements!
- High energy Li-on battery (up to 20H operation time / with gas cooled)
- Customizable screen settings
- Durable and dirt resistant keypad
- Built-in speed printer with easy paper loading



TECHNICAL SPECIFICATIONS

NOVAplus BIOGAS analyzer Portable analyzer with up to 5 electrochemical sensors and DUAL GAS NDIR bench

BIOGAS components	Measuring range	Accuracy
CO ₂ Carbon dioxide	2 Gas NDIR 0...100%	± 0.3 % or 5% reading
CH ₄ Methane	2 Gas NDIR 0...100%	± 0.3 % or 5% reading
O ₂ Oxygen	0 ... 21.0 Vol-%	± 0.2 Vol-% abs.
H ₂ S Hydrogen sulfide	0 ... 200 ppm overload 2,000ppm *	± 5 ppm or 5 % reading up to 500 ppm 10 % reading up to 2,000 ppm

MGAprime



Gas measurement (EC/PM)	Method	Measuring range
Oxygen (O ₂) (long life)	EC	0...25%
Oxygen (O ₂)	PM	0...25%

Gas measurement (NDIR)	Measuring range min./max.	Resolution
Nitric monoxide (NO)	0 ... 200/4.000 ppm	0.1 ppm
Nitric dioxide (NO ₂)	0 ... 300*/1.000 ppm	0.1 ppm
Sulphur dioxide (SO ₂)	0 ... 300*/4.000 ppm	0.1 ppm
Carbon dioxide (CO ₂)	0 ... 40%	0.01 Vol%
Carbon monoxide (CO)	0 ... 175/10.000 ppm	0.1 ppm
Nitrous oxide (N ₂ O)	0 ... 100/500 ppm	0.1 ppm
Methane (CH ₄)	0 ... 500/10.000 ppm	0.1 ppm
Propane (C ₃ H ₈)	0 ... 200/5.000 ppm	0.1 ppm



Features :

- ◆ 7" high-resolution (800x480 pixel) TFT colour display with swipe and touch technique, with LINUX OS
- ◆ PC communication via LAN - Ethernet Wireless data transfer via WiFi dongle
- ◆ Precise measuring technique with lowest offset drift by means of special non-dispersive infrared (NDIR), for enhanced long-time measurements!
- ◆ Up to 8 NDIR low range gas measurement: O₂/CO/CO₂/C₃H₈/CH₄/SO₂/NO/NO₂/N₂O

MGPrimeQ

MGA Prime Q with QAL 2 Certificate and EN14181
O₂, CO, CO₂, NO, NO₂, SO₂, C₃H₈, CH₄, N₂O

Portable Emissions Analysis

Certified for official measurements and Highly precise NDIR and Paramagnetic Cell analysis is required for industrial applications with durable and tough instrument.



Heated Probe
Line 160°C



Dosage unit for
phosphoric acid



DIMENSIONS AND OTHER DATA	
Operating system	LINUX
Display	7" TFT (800 x 480 px) colour display with touch operation
Data storage	10.000 data sets internal
Interfaces	Ethernet, WLAN, RS485
Operating temp.	+5 ... +50 °C ; RH up to 95 %
Storage temperature	-20 ... +50 °C
Internal power supply	Li-Ion , 48 Wh
External power supply	86-265 Vac /47-63 Hz / 105 W
Warm up	30 Minutes
Dimensions	430 x 290 x 150 mm
Weight	appr. 7,5 kg

MEASURING RANGE	
O ₂ (Paramagnetic)	0 ... 25,00 %
NO (NDIR)	0 ... 4,000 ppm
NO ₂ (NDIR)	0 ... 1,000 ppm
SO ₂ (NDIR)	0 ... 4,000 ppm
CO ₂ (NDIR)	0 ... 40 %
CO (NDIR)	0 ... 10.000 ppm
N ₂ O (NDIR)	0 ... 500 ppm
CH ₄ (NDIR)	0 ... 10.000 ppm
C ₃ H ₈ (NDIR)	0 ... 5.000 ppm
Stackgas temperature	0 ... 1.100 °C
Combustion air temp.	0 ... 500 °C
Ambient air temp.	0 .. 100 °C
Differential pressure	-120 ... + 120 hPa
Flow measurement	3 ... 100 m/s

STATIONARY CONTINUOUS BIOGAS

SWG 100 Biogas



Stationary Biogas-measuring system for continuous measurements

- ◆ SWG100 Biogas Analyzer are designed for use in the harsh industrial environment of different sites where biogas is produced.
- ◆ For Biogas, Biharsh industrial environment

Convincing benefits :

- ◆ Industry compatible rugged design for Up to 10 sites monitoring (time sharing technique) with only one analyzer
- ◆ Continuously monitored fan ventilation
- ◆ Efficient sample gas preparation for fast and reliable measurements no dilution of the sample gas, neither use of compressed air is required
- ◆ Direct and continuous measurement, with pressure and temperature compensation and event data logging
- ◆ Up to 10 sites monitoring (time sharing technique) with only one analyzer

Technical Specifications :

Measured components	Measuring method	Range	Resolution	Accuracy
Methane CH ₄	infrared	0 - 100 %	0,1 Vol%	± 0,3 Vol% / 3 % of reading**
Carbon dioxide CO ₂	infrared	0 - 100 %	0,01 Vol%	± 0,3 Vol% / 3 % of reading**
Oxygen O ₂	ec, continuously	0 - 25 %	0,01 Vol%	0,2 % abs.
Hydrogen sulfide H ₂ S	ec, discontinuously	0 - 2.000/4.000 ppm*	1 ppm	± 10 ppm / 10 % of reading**
Hydrogen sulfide H ₂ S low	ec, discontinuously	0 - 200/1.000 ppm*	1 ppm	± 5 ppm / 10 % of reading**
Hydrogen sulfide H ₂ S high	ec, continuously	0 - 10.000/50.000 ppm*	1 ppm	± 50 ppm / 5 % of reading**
Hydrogen H ₂	ec, discontinuously.	0 - 1.000/2.000 ppm*	1 ppm	± 10 ppm / 10 % of reading**
Calculated components	Calorific value: 0 - 50 MJ/m ³ ; MJ/kg			

SWG 100 CEM



STATIONARY EMISSION ANALYZER O₂, CO, NO, NO₂, SO₂, CO₂ AND CH₄

Features :

- Field replaceable, plug & play pre-calibrated sensors
- For up to 6 gas simultaneous measurement
- Sensor electrochemical cells for O₂, CO, NO, NO₂, SO₂ and an infrared module (NDIR) for CO₂ measurement
- Advanced sample gas preparation for fast and reliable measurements
- Flexible platform can be used for various combustion applications
- Analyzer system can be configured with different gas sampling probes and sampling lines to optimize the sample gas preparation (Option)
- Simple installation, ready to run delivery and easy to maintain

Technical Specifications :

Gas Sensor	Range	Method	Accuracy
Oxygen O ₂	0 - 25,00 %	Electrochemical	0,2% abs
Carbon monoxide CO	0 - 10.000 ppm	Electrochemical	± 10 ppm or 3% reading
Nitric monoxide NO	0 - 4.000 ppm	Electrochemical	± 5 ppm or 3% reading
Nitric dioxide NO ₂	0 - 1.000 ppm	Electrochemical	± 5 ppm or 3% reading
Sulfur dioxide SO ₂	0 - 4.000 ppm	Electrochemical	± 10 ppm or 3% reading
Carbon dioxide CO ₂	0 - 40,00 %	NDIR	± 0,3% or 3% reading
Carbon monoxide CO	0 - 1.000 ppm to 30.000 ppm*	NDIR	± 10 ppm or 2% reading**

SWG 200 CEM



Stationary gas analysis system for continuous process gas and emission monitoring



Technical Specifications :

Gas measurement (NDIR)	Measuring range min/max	Resolution	Repeatability*
NO	0 ..200/4000 ppm	0.1 ppm	2 ppm or 1% reading
NO ₂	0 ..150/500 ppm	0.1 ppm	1 ppm or 1% reading
SO ₂	0 ..200/4000 ppm	0.1 ppm	2 ppm or 1% reading
CO ₂	0 ..40%	0.01 vol %	0.2% or 1% reading
CO	0 ..200/10.000 ppm	0.1 ppm	2 ppm or 1% reading
Nitrous oxide N ₂ O	0 ..100/500 ppm	0.1 ppm	2 ppm or 1% reading
Methane CH ₄	0 ..500/10000 ppm	0.1 ppm	10 ppm or 1% reading
Propane C ₃ H ₈	0 ..200/5000 ppm	0.1 ppm	2 ppm or 1% reading
Gas Measurement (EC/PM)	Method	Measuring range min/max	Resolution
Oxygen O ₂ (long life)	EC	0 ..25%	0.01 %
Oxygen O ₂	PM	0 ..25%	0.01 %
Hydrogen sulphide H ₂ S	EC	0 ..2000/5000 ppm	1 ppm
Hydrogen H ₂	EC	0 ..1000 2000 ppm	1 ppm

Features :

- IP54 aluminium cabinet with anti-corrosive red structural lacquer and monitored fan ventilation
- Included dual heat exchanger Peltier gas cooler with two automatic condensate draining pumps
- Efficient sample gas filtration using PTFE sintered particulate filter
- Regulated sample gas pump with sample gas flow monitoring and alarm
- Filtration of acid gases to protect the internal sample gas flow sensor
- Solenoid valve for auto-zero with clean ambient air
- Solenoid valve for calibration gas, with aluminium fine pressure regulator at cal. gas inlet port
- Human machine interface with colour TFT display, keyboard and standard RS485 interface (Modbus RTU)
- All password protected, intuitive software guided menu, with

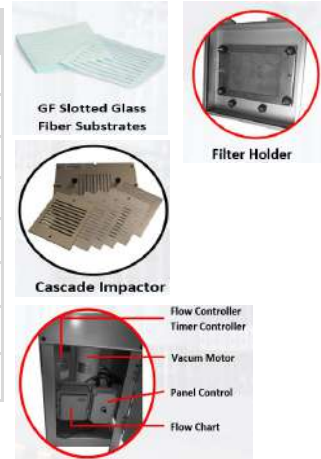
BESTECH INSTRUMENT

High Volume Air Sampler

Total Suspend Particulate (TSP), PM 10 and PM 2,5 with **Cascade Impactor**



Specification:	
Particulate Size	: TSP, PM 2.5 and PM10
Flow Controller	: Mass Flow Controller
Motor Style	: Brush
Flow Recorder	: Staplex/Tiesch Flow Recorder, 24 hour
Timer	: 7 Day Mechanical
Flow Rate	: 36-60 CFM
Housing	: Anodized Aluminium
Filter Holder	: Stainless Steel, size 8 x 10"



BESTECH INSTRUMENT
Model : BSA-HV-TSP, TSP High Volume Air Sampler
Model : BSA-HV-PM10, with PM10 Impactor High Volume Air Sampler
Model : BSA-HV-PM2,5, with PM2,5 Impactor High Volume Air

High Volume Air Sampler

PM 10 and PM 2,5 with **Selective Inlet**



Specification:	
Selective Inlet Size	: TSP, PM 2.5 and PM10
Flow Controller	: Mass Flow Controller
Motor Style	: Brush
Pressure Recorder	: Dickson Chart Recorder, 24 hour
Timer	: 7 Day Mechanical
Flow Rate	: 36-60 CFM
Housing	: Anodized Aluminium
Filter Holder	: Stainless Steel, 8 x 10"



**PM 2.5
Selective Inlet**



**PM 10
Selective Inlet**

BESTECH INSTRUMENT

IMPINGER AMBIENT AIR SAMPLER



Diaphragm Pump	Flow: 3.2LPM Noise: ≤55dB Quantity : 5 pcs
Monitor	RH. Timer, Jam, Hari, Minggu
Flow Range max	0 to 1,5 ltr/min - 2bh (5 units Pump) 0 to 0,8 ltr/min - 3bh (5 units Pump)
Glass Impingers	5pcs inlet, 5 pcs outlet, 30 ml capacity
Flow control	1pcs flow meter capacity 2,5 l/min for adjustable air flow and 5 pcs potensiometer
Timer	Elapsed time (power cable)
Dimension	50 x 30 x 37 cm
Power	Rated voltage: 220 VAC Battrey Charger / Battrey cheker, Power: 50W, DC 12 Volt -/+9 Ah
Sample test	SO ₂ (Sulfur Dioxide) – included, NO ₂ (Nitrogen Dioxide) – included, H ₂ S (Hydrogen Sulfide) – included, NH ₃ (Ammonia) – included, O ₃ (Ozone) – included, and other pollutan depending reagent
Complete unit	Includes : Main unit glas impinger sampler, cable power, 10 pcs glass impinger for inlet/outlet, Tripod Stand
Acessories	2 (two) pcs glass impingers inlet, 2 (two) pcs glass impingers outlet, Tripod Impinger Support

RINGLEMAN SMOKE OPACITY METER WITH DIGITAL CAMERA

Spesifikasi :	
Perbesaran sudut pandang	15 kali
Jarak Pengukuran	10 ~ 2000 meter
Lensa objektif melalui aperture	-/+ 80 mm
Tingkat kepekatan:	6 Level Level 0 : 0 % Level 1 : 20 % Level 2 : 40 % Level 3 : 60 % Level 4 : 80 % Level 5 : 100 %
Digital Kamera	6x optical Zoom, 20 MP
Memory Card	8Gb
Tripod	Maximum Height 1660mm Load Capacity 4kg



HORIZONTAL WATER SAMPLER



Spesifikasi :	
Tipe	: HWS-2,2, HWS-3,2, HWS-4,2
Kapasitas	: 2,2; 3,2; 4,2 Liter
Bottle	: Acrilik transparan
Tali	: poliester 5mm
Panjang Tali	: 20 m Messenger

VERTICAL WATER SAMPLER



Spesifikasi :	
Tipe	: VWS-2,2, VWS-3,2, VWS-4,2
Kapasitas	: 2,2; 3,2; 4,2 Liter
Bottle	: Acrilik transparan
Tali	: poliester 5mm
Panjang Tali	: 20 m Messenger

Product Features :

The **VISKOR VG-5005** is a portable automotive exhaust gas analyzer. stands with 4 or 5 gases with digital infrared gas bench Technology. Designed as an easy-to-use analyzer for vehicle testing. The VG-5005 comes with a built-in printer, probes, probe hoses, filters, PC program and instructions manual.

Optional accessories: RPM meter, an oil temperature sensor

- Accurate analysis of CO, HC, CO₂, O₂, NO_x optional with lambda value calculation
- Portable (Compact design)
- Aluminium case (light weight)
- Automatic continuous measurement
- Leak test function
- Integrated Thermal Printer
- PC program (RS-232)
- 6 LED Display Windows
- Automatic zero, span calibration
- Integrated battery (optional)



Basic Accessories



Back



Diesel Engine Smoke Opacity Meter



Description	Opacity Smoke Meter
Model	Opacity Smoke Meter ECM-801
Measurement items	Smoke concentration (Opacity), absorption coefficient(K-value)
Measurement method	Partial flow sampling method / Light transmission type
Photoelectric element	Green LED (565nm)
Detector	Photodiode
Tube Length / ID	Length: 215mm (± 0.5mm), ID.: 21mm
Measuring range	Opacity: 0% - 100%, K-value: 0.00 - 16.07m ⁻¹
Resolution	0.1% / 0.01m ⁻¹
Accuracy	±1%
Response time	0.5 sec (90%)
RPM	0-8000rpm
Resolution	10rpm
Oil Temperature	0~150° C
Resolution	1° C
Display	4digit 16 Segments
Measurement speed/ display speed	50 times/sec. 4 times/sec
Filter	Bezel low pass digital filter (0.5 second)
Preheating time	-10 ~ 40° C
Power Supply	AC 220V 50/60Hz

Description	Automotive Exhaust Analyzer
Model	VG -5005 / VG -5005(5gas) optional
Measuring gases	CO, HC, CO ₂ , O ₂ , Lambda (Air surplus rate), AFR, NO _x (Optional)
Measuring principles	CO, HC, CO ₂ : NDIR (Non-Dispersive Infrared Analysis) O ₂ , NO _x : Electrochemical
CO	0.00 -10.0% / 0.01%
HC	0 -9,999ppm / 1 ppm
CO ₂	0.0 - 20.0% / 0.1%
O ₂	0.0 - 25.00% / 0.1%
NO _x (Optional)	0 - 5.000 ppm
Lambda	0 - 2.000 / 0.001
AFR	0.0 - 99.0% / 0.1%
Repetition rate	Less than 2% FS
Respon time	< 10 seconds
Preheat time	< 5 minutes
Flow rate	1.8 L/min
Power	AC 220V, 50/60Hz
Calibration	Automatic zero calibration / Span calibration
Dimensions	260 (W) x 300 (D) x 180(H) mm
Weight	3.0 kg
Standard accessories	Probe, Probe hose, Power cord, RS232 communication cable
Options	RPM and OIL temperature meter

ECM-801

Product Features:

The Opacity Smoke Meter, also referred to as an opacity meter, detects and measures the amount of light blocked in smoke samples emitted by diesel engines from cars, trucks, boats, buses, motorcycles, locomotives, and large stacks from industrial operations. The smoke meter reading displays the smoke density which provides a measure of combustion efficiency. This makes the smoke meter an excellent diagnostic tool to ensure proper maintenance of diesel engines for improved fuel economy and environmental protection.

- Real-Time smoke measurement (% , k [m⁻¹])
- Portable and LED display
- Outstanding accuracy, stability and durability
- Response time of 0,5 second
- Smoke, SOF measurement
- Easy to use with handheld terminal (option)
- Built-in printer (option)
- RS232 PC program,
- RPM/Oil temp. meter (option)
- Auto-Zero/ Span calibration function

Automotive Exhaust Gas Analyzer Model : KEG-200



Description	Automotive Gas Analyzer
Model	: KEG-200 (2 Gas)
Measurement gas	: CO, HC
Display	: 4digit
Measurement speed/ display speed	: 50 times/sec. 4 times/sec
Filter	: Bezel low pass digital filter (0.5 second)
Power Supply	: AC 220V 50/60Hz

Automotive Exhaust Gas Analyzer Model : KEG-500



Description	Automotive Gas Analyzer
Model	: KEG-500 (5 Gas)
Measurement gas	: CO, HC, CO ₂ , O ₂ , AFR, NOX
Display	: 4digit 16 Segments
Measurement speed/ display speed	: 50 times/sec. 4 times/sec
Filter	: Bezel low pass digital filter (0.5 second)
Power Supply	: AC 220V 50/60Hz

Diesel Opacity Smoke Meter Model : OP-201



Description	Diesel Opacity Smoke Meter
Model	: OP-201
Measuring Items	: Smoke opacity (% , k [m ⁻¹]) RPM(option), °C(option)
Principle	: Light extinction method (Psrtial-flow sampling type)
Light Source	: Green LED(565nm)
Detector	: Photodiode
Range	: 0.0 ~ 100.0% (0.00 ~ 21.42m ⁻¹)
Power Supply	: AC 220V 50/60Hz



Hand-Held Vibration Meters VM Series

- Condition monitoring of rotating and reciprocating machines to ISO 20816-1, ISO 10816-6, IEC 60034-
- Evaluation of roller bearing condition to VDI 3832 etc. (VM24 and VM25)
- Human vibration (VM31); Graphical trend display (VM2x)
- Measurements at vibration conveyors, vibrating screens and separators (VM23)
- Frequency analysis (VM25/31); Main frequency display (VM23)
- Non-contact rotation speed measurement with laser pointer (VM25)
- Infrared temperature sensor (VM25)
- USB interface, PC software for measuring point management to MIMOSA convention and measuring data archiving

Parameters	VM22	VM23
Measuring channels	1	1
Inputs	L.P.IEPE + VMID	L.P.IEPE + VMID
Measuring ranges		
Vibration velocity	0.1 - 1000mm/s	0.1 - 1000mm/s
Vibration displacement	No	0,01 - 60mm
Frequency ranges		
Vibration velocity	10 - 1000 Hz	10 - 1000 Hz
Vibration displacement	No	2 - 100Hz, 2 - 1000Hz, 10 - 10000Hz
Other features		
RMS measurement	Yes	Yes
Peak measurement	No	yes (pk-pk)
Main Frequency	No	Yes
Frequency Analysis	No	512 lines FFT
Accessories		
Supplied accelerometer	KS82L	KS82L
Sensor probe (option)	VM2x-T	VM2x-T
Temp. up to 250°C	KS56 dan VM2x-A	KS56 dan VM2x-A



4-Channel Human Vibration Analyzer

For Hand-Arm vibration to ISO5349 and ISO/TR 18570, whole-body vibration to ISO2631 and ship vibration to ISO 20283-5

Acceleration, velocity and displacement ranges for machine vibration

Display of running and interval RMS, maximum RMS (MTVV), vibration dose value (VDV), vector sum, peak and maximum peak value

Fourth channel for SEAT measurements at driver seats

3-channel FFT for the detection of main frequencies

[TEDS support for automatic sensor detection](#)

Memory for saving measurements by keypress

Data logger function for RMS or peak values

Specification	
Measuring inputs	: 4 Low Power IEPE inputs with TEDS for sensors with 8 to 1200 mV/g
Band filters	: Human vibration: 0.4 - 100 Hz; 6.3 - 1259 Hz
	: Acceleration: 0.1 - 1500 Hz; 1 - 1000 Hz
	: Velocity: 1 - 100 Hz; 2 - 1000 Hz; 10 - 1000 Hz
	: Displacement: 5 - 250 Hz
Frequency analysis (FFT)	: 125 lines for X/Y/Z, peak spectrum of acceleration
Data memory	: 10000 manually saved measurements, 100 log files of 32000 measurements each, 1000 FFTs, each with date, time and comment
Display	: OLED, 128 x 160 pixels, colored
Batteries	: 3 accumulators HR03 or alkaline cells LR03 (AAA), 10 -14 hours operation



Hand-Held Vibration Meters VM25 Series



VM25	
Measuring channels	: 1
Inputs	: L.P.IEPE + VMID
Measuring ranges	
Vibration Acceleration	: 0,1 - 240 m/s ²
Vibration velocity	: 0,1 - 1000 mm/s
Vibration displacement	: 0,01 - 60mm
Rotary Speed	: 1 - 9999 U/min
Frequency ranges	
Vibration Acceleration	: 0.2 Hz-10 kHz, 3 Hz -1 kHz, 1 kHz - 10 kHz
Vibration velocity	: 2 - 100Hz, 2 - 1000H
Vibration displacement	: 5 - 200Hz
Other features	
RMS measurement	: Yes
Peak measurement	: yes
Crest factor measurement	: yes
Bearing diagnostic Coefficient	: yes
Frequency Analysis	: 125 lines FFT; 10 frequency ranges, 23 - 11712 Hz

Vibration Meter & FFT Analyzer SVAN 974



Machine Vibration
ISO 20816
Vibration Analysis

The SVAN 974 Vibration Meter and Analyzer is intended for general vibration measurements and machinery condition monitoring. It can be used by consultants, maintenance services, industrial R&D departments etc. Most of the required weighting filters, like IEC81, meeting ISO 22816 standard requirements, are available with this instrument.



RMS, PEAK, MAX
Acceleration, Velocity and Displacement

The instrument allows parallel acceleration, velocity and displacement measurements. Three vibration profiles in the SVAN 974 Vibration Meter allow parallel measurements with independently defined filters and RMS detector time constants. Each profile provides a significant number of results (like RMS, Peak or Max).



FFT & RPM
Frequency Analysis and Rotation Speed

The FFT analysis allows selection of the frequency band, providing accurate analysis of the vibrational source of interest (e.g. 1500 lines in the frequency band up to 1.25 kHz). With a dedicated tachometer the SVAN 974 can monitor RPM together with vibration assessment (simple order tracking).

Human Vibration Meter SV 106D



Six Channels

Two inputs for connection of triaxial sensors

The SV 106D is equipped with two 3-axis inputs for ICFE or MEMS sensors. It allows simultaneous measurements with two triaxial accelerometers (e.g. both hands vibration or triaxial SEAT vibration transmission).



Hand-Arm Vibration

3-axis hand-arm accelerometer with adapters

According to ISO 5349, hand-arm vibration should be measured in place, or at the point of contact with the hand tool. SV 106D uses dedicated MEMS sensors to measure vibrations on a tool handle or directly on a hand.



Whole-Body Vibration

Measurement on a seat pad and seat back

The whole-body vibration measurement is easier thanks to SV 38V seat accelerometer which can be placed directly on the seat cushion, floor or head to the back of the seat. The triaxial SEAT transmission measurements are also possible.



QUESTEMP WBGT Heat Stress Monitors



These instruments deliver high-performance monitoring through Wet Bulb Globe Temperature (WBGT) sensing technology and the calculation of a WBGT index value.

- Utilizes WBGT sensing technology; the standard for heat stress management
- Traditional wet bulb sensing technology
- Convenient stay time parameters per multiple standards help determine work-rest ratios
- IP 54 ingress rating helps protect unit from exposure to dirt, dust, oil and water
- Designed to withstand the rigors of everyday use in demanding environments



Noise Dosimeter *ST-130/S*



ST-130 Noise Dosimeter is the ideal tool for performing occupational and industrial hygiene noise measurements and provides a unique solution for these applications. The ST-130 is designed to meet the dose measurement standards of OSHA, IEC and ISO regulations. To measure long-term noise exposure, the ST-130 comes with a small, lightweight, cable-free design and can be worn on the shoulder for minimal discomfort.

- Application

SS2000 applies for all the inorganic and organic compounds including the sand, rocks, clay, granite, feldspar, coal, soil, grains, seeds and all kinds of solid particles

Features and Advantages

- ◆ Environmental and logging noise evaluation
- ◆ Occupational noise measurement in the workplace
- ◆ Compliance with workplace noise regulations and workplace noise exposure guidelines
- ◆ Long-term noise exposure monitoring and recording
- ◆ Measurement of noise exposure in hazardous environments such as oil fields, petrochemical plants and underground mines
- ◆ Measurement of noise exposure in the entertainment and music industries

Sound Level Meter *ST-15D, ST-21D, ST-25D*



Scarlet ST-15D integrates professional class 1 sound level monitoring with a GPS analyzer that meets IEC and ANSI international standards. It is fitted with one-third octave band filters for detailed sound analysis. Precisely measure sound level and detect noise source with one-device.

- Real-Time 1/3 Octave Band Analysis
- Smart Software for Sound Data Management
- Locate Noise Source With GPS



Scarlet ST-21D Sound Level Meters fully comply with the latest Class 2 IEC 61672:2013 standard. Advanced integrating algorithms designed to withstand industrial conditions.

Equates continuous sound level and sound exposure after choosing a time period, an ideal tool for occupational noise measurements, such as those required by the Controls of Noise at Work Regulations or OSHA Occupational Noise standards. At the front line, ensure the protection of hearing and occupational safety for employees.

Features

- Integrating Algorithms for occupational Noise
- Data Logging & Precision Recording
- Locate Noise Source With GPS



ST-25D integrates professional class-2 sound level monitoring that complies with IEC and ANSI standards. It is equipped with the integration function for detailed sound analysis. Measure sound level and identify noise source with one device.

Sounds analyzers provide octave bands analysis to help Safety Manger identify exactly noise sources easily by looking into the most relevant frequency components. The frequency domain information is based on DSP technology. Scarlet Sound™ ST-25D is the one you need.

Main Function List:

- Integrating Function
- Statistical Analysis Function
- SD Card & Sound Recording Function

Handheld Heat Stress Monitor *TWL-1S*



TWL-1S is used to monitor and assess thermal risk level indoor and outdoor. It has a smart user-friendly interface which allow users to instantly identify the thermal risk level result based on different colors. Users can also do data logging directly by connecting the device to windows PC via the USB cable. Wireless pager for remote alerting system is available for the TWL-1SR model.

- Wet Bulb Globe Temperature (WBGT)
- Thermal Work Limit (TWL)
- Globe Temperature
- Dry Bulb Temperature
- Relative Humidity
- Wet Bulb Temperature
- Wind Speed
- TWL-1S is designed for all kinds of worksites including mining and construct
- Built based on scientific research and algorithm for heat stress safety management.
- Record and download TWL data directly on your windows computer via USB cable
- Every device is calibrated to ensure accuracy. Third-party calibration certificate is available upon request.

WEATHER STATION



Vantage Vue

Vantage Vue provides accurate, reliable weather monitoring in a self-contained, easy-to-install system. Sleek but tough, Vantage Vue gives you all the weather data you need:

- ✔ Inside and Outside Temperature
- ✔ Dew Point
- ✔ Barometric Pressure
- ✔ Historical Graphing
- ✔ Inside and Outside Humidity
- ✔ Wind Speed and Direction
- ✔ Wind Chill and Heat Index
- ✔ Rain Fall and Rain Rate
- ✔ Forecast



Vantage Pro2

An industrial-grade weather station engineered to handle the harshest environments and deliver data with scientific precision, year after year. The Vantage Pro2 and Vantage Pro2 Plus offer the professional weather observer or serious weather enthusiast robust performance with a wide range of options and sensors.

You'll get your own local forecast, highs/lows, totals or averages, and graphs for virtually all weather variables over the past 24 days, months, or years — all on the console.

- ✔ All Vantage Vue weather data
- ✔ UV
- ✔ THSW Index
- ✔ Solar Radiation
- ✔ Evapotranspiration



FKC-100 Microbial Air Sampler

It is an ideal floating dust bacteria concentration sampling instrument for the detection departments of various pharmaceutical factories, hospitals, biological products, food processing, and public places.

FKC-100 Microbial Air Sampler is a porous inhalation type plankton sampler. divided into upper and lower parts, the upper part is the collection port, the sampling seat and the air pump, and the lower part is the controller and battery.

Performance Parameter

- Sampling flow: 100L/min±2%
- Power supply: AC and DC dual purpose, rechargeable battery DC7.4V
- Volume: φ120*300
- Set sampling volume range: 10~6000L
- Weight: 2.5kg



Genie G Ultrapure & EDI Lab Water System



Genie G produces ultrapure water (Type I water) and EDI water (Type II water) from tap water directly. Quality of ultrapure water and EDI water meet or exceed ASTM, CLSI, CAP, and ISO Type I water and Type II water standards, respectively. The system is CE/RoHS certified. Rephile provides full documents support to meet user's GMP, GSP, GAP, GCP, GLP requirements. Catalog No.: RG0G005T0, RG0G010T0, RG0G015T0

Spesifikasi :

Tap water	: Municipal water, Conductivity < 2000 µS/cm (1000 ppm)
Operating temperature	: 5 - 35 °C
Feed water pressure	: 1 - 6 bar (15 - 90 psi)

Water Flow Rate :

EDI water production rate (@ 25°C)	: 5, 10, 15 L/hr
EDI water dispensing rate	: Up to 2.0 L/min
Ultrapure water dispensing rate	: Up to 2.0 L/min

Product Water Quality :

RO rejection	97 to 98% ionic rejection (new RO cartridge) > 99% organic rejection > 99% particulates & bacteria rejection
EDI water resistivity (@ 25°C)	> 5 MΩ·cm (typically 10 - 16 MΩ·cm)
EDI water TOC*	< 30 ppb
Ultrapure water resistivity (@ 25°C)	18.2 MΩ·cm
Ultrapure water TOC*	< 2 ppb
Particles in ultrapure water (> 0.2 µm)	No particles (with a 0.2 µm final filter or RephiBio filter)
Microorganisms in ultrapure water	< 0.01 cfu/ml (with a 0.2 µm final filter or RephiBio filter)
Pyrogens in ultrapure water	< 0.001 Eu/ml (with a RephiBio filter)
RNase in ultrapure water	< 0.5 pg/ml (with a RephiBio filter)
DNase in ultrapure water	<10 pg/ml (with a RephiBio filter)

Dimensions :

Main system dimensions Width × depth × height	32 × 44 × 54 cm (12.6 × 17.3 × 21.3 in)
Dispenser dimensions Width × depth × height	21 × 29 × 61 cm (8.3 × 11.4 × 24.0 in)
Weight	20 kg
Input Voltage	110 - 240 VAC
Operating Voltage	24 VDC
Main system power	< 200 W

Genie PURIST Ultrapure Lab Water System



Genie PURIST ultrapure water system produces Type I ultrapure water from RO, distilled or deionized water and it is designed for critical laboratory applications, offering desired solutions for research professionals who work with varieties of applications utilizing Type I ultrapure water in the lab. Quality of ultrapure water meet or exceeds ASTM, CLSI, CAP, and ISO Type I water standards. The system is CE/RoHS certified. Rephile provides full documents support to meet user's GMP, GSP, GAP, GCP, GLP requirements.

Catalog No.: RG0S00000, RG0S000T0

Feed Water Requirements

Tap water	: Municipal water, Conductivity < 2000 µS/cm (1000 ppm)
Operating temperature	: 5 - 35 °C
Feed water pressure	: 1 - 6 bar (15 - 90 psi)

Water Flow Rate :

EDI water production rate (@ 25°C)	: 5, 10, 15 L/hr
EDI water dispensing rate	: Up to 2.0 L/min
Ultrapure water dispensing rate	: Up to 2.0 L/min

Product Water Quality :

RO rejection	97 to 98% ionic rejection (new RO cartridge) > 99% organic rejection > 99% particulates & bacteria rejection
EDI water resistivity (@ 25°C)	> 5 MΩ·cm (typically 10 - 16 MΩ·cm)
EDI water TOC*	< 30 ppb
Ultrapure water resistivity (@ 25°C)	18.2 MΩ·cm
Ultrapure water TOC*	< 2 ppb
Particles in ultrapure water (> 0.2 µm)	No particles (with a 0.2 µm final filter or RephiBio filter)
Microorganisms in ultrapure water	< 0.01 cfu/ml (with a 0.2 µm final filter or RephiBio filter)
Pyrogens in ultrapure water	< 0.001 Eu/ml (with a RephiBio filter)
RNase in ultrapure water	< 0.5 pg/ml (with a RephiBio filter)
DNase in ultrapure water	<10 pg/ml (with a RephiBio filter)

Genie U Ultrapure & RO Lab Water System



Genie U produces ultrapure water (Type I water) and RO water from tap water directly, it offers desired solutions for research professionals who work with varieties of applications utilizing Type I ultrapure and RO pure water in the lab. Quality of ultrapure water meets or exceeds ASTM, CLSI, CAP, and ISO Type I water standards.

The system is CE/RoHS certified. Rephile provides full documents support to meet user's GMP, GSP, GAP, GCP, GLP requirements.

Catalog No.: RG0U01000, RG0U010T0, RG0U0100R, RG0U010TR, RG0U02000, RG0U020T0, RG0U0200R, RG0U020TR, RG0U03000, RG0U030T0, RG0U0300R, RG0U030TR

Spesifikasi :		Water Flow Rate :	
Tap water	: Municipal water, Conductivity < 2000 $\mu\text{S}/\text{cm}$ (1000 ppm)	EDI water production rate (@ 25 $^{\circ}\text{C}$)	: 12, 24, 32 L/hr
Operating temperature	: 5 - 35 $^{\circ}\text{C}$	EDI water dispensing rate	: Up to 2.0 L/min
Feed water pressure	: 1 - 6 bar (15 - 90 psi)	Ultrapure water dispensing rate	: Up to 2.0 L/min

Dimensions :	
Main system dimensions Width \times depth \times height	32 \times 44 \times 54 cm (12.6 \times 17.3 \times 21.3 in)
Dispenser dimensions Width \times depth \times height	21 \times 29 \times 61 cm (8.3 \times 11.4 \times 24.0 in)
Weight	20 kg
Input Voltage	110 - 240 VAC
Operating Voltage	24 VDC
Main system power	< 200 W

Genie E EDI Pure Lab Water Systems

Genie E produces EDI water (Type II water) from tap water directly. Resistivity of the product water is above 5 $\text{M}\Omega\cdot\text{cm}$ at 25 $^{\circ}\text{C}$, which meets or exceeds Type II water quality as defined by ASTM, CAP, CLSI and ISO 3696 / BS 3997 and also complies with the purified water requirements from the European and U.S. Pharmacopoeia.

The system is CE/RoHS certified. Rephile provides full documents support to meet user's GMP, GSP, GAP, GCP, GLP requirements.

Catalog No. : RG0E00500, RG0E01000, RG0E01500, RG0E0050R, RG0E0100R, RG0E0150R

Spesifikasi :	
Tap water	: Municipal water, Conductivity < 2000 $\mu\text{S}/\text{cm}$ (1000 ppm)
Operating temperature	: 5 - 35 $^{\circ}\text{C}$
Feed water pressure	: 1 - 6 bar (15 - 90 psi)

Water Flow Rate :	
EDI water production rate (@ 25 $^{\circ}\text{C}$)	: 5, 10, 15 L/hr
EDI water dispensing rate	: Up to 2.0 L/min

Dimensions :	
Main system dimensions Width \times depth \times height	32 \times 44 \times 54 cm (12.6 \times 17.3 \times 21.3 in)
Dispenser dimensions Width \times depth \times height	21 \times 29 \times 61 cm (8.3 \times 11.4 \times 24.0 in)
Weight	20 kg
Input Voltage	110 - 240 VAC
Operating Voltage	24 VDC
Main system power	< 200 W

Product Water Quality :	
RO rejection	97 to 98% ionic rejection (new RO cartridge) > 99% organic rejection > 99% particulates & bacteria rejection
Water resistivity (@ 25 $^{\circ}\text{C}$)	> 5 $\text{M}\Omega\cdot\text{cm}$ (typically 10 - 16 $\text{M}\Omega\cdot\text{cm}$)
TOC*	< 30 ppb



SEMIMICRO BALANCE

HPB-Resolution 0,01 mg – 0.1 mg



BEL Engineering semi-micro HPB balance with 0.01 mg resolution. Equipped with an electromagnetic cell. Model -ION is equipped with an ionizer for the purpose of neutralizing static electricity on charged objects such as plastics, containers or films.

Features	Accessories
Highly integrated weighing cell	Portable ioniser-A15 (BL0371)
Electromagnetic force restoration weighing system	BEL Tablet System for balance. USB Version (BL0329) or BLUETOOTH version (BL03030).
Automatic internal calibration	Bluetooth printer DPP-250BT for BEL Tablet System (AC013)
Efficient filtering to deliver quick and accurate result	Serial printer TLP-50, with date/time (C054)
LCD with backlight with adjustable contrast	Serial printer DPP-250 (AC007)
Large glass draught shield with 3 sliding doors for easy access to the items being weighed	Density KIT for solids and liquids (AC002)
Plastic protection cover for keypad	Serial printer STAT, with statistics function (AC022)

TECHNICAL PARAMETERS

Model	Capacity (g)	Resolution (mg)	Pan (mm)	Repeatability (mg)	Linearity (mg)	Response time (sec.)
Automatic internal calibration						
HPB-425i	42	0,01	Ø80	0,05	± 0,05	≤ 6
HPB-625i	62	0,01	Ø80	0,05	± 0,08	≤ 6
HPB-105i	102	0,01	Ø80	0,05	± 0,08	≤ 6
HPB-1245Di	42/120	0,01/0,1	Ø80	0,02 / 0,1	± 0,05 / ± 0,2	≤ 6
HPB-1265Di	62/120	0,01/0,1	Ø80	0,03 / 0,1	± 0,08 / ± 0,2	≤ 6
HPB-2245Di	42/220	0,01/0,1	Ø80	0,02 / 0,1	± 0,1 / ± 0,2	≤ 6
HPB-2265Di	62/220	0,01/0,1	Ø80	0,03 / 0,1	± 0,1 / ± 0,2	≤ 6
HPB-2285Di	82/220	0,01/0,1	Ø80	0,05 / 0,1	± 0,1 / ± 0,2	≤ 6
HPB-22105Di	102/220	0,01/0,1	Ø80	0,05 / 0,1	± 0,1 / ± 0,2	≤ 6
HPB 414Ai	410	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3 mg from 220g to 310g 0,35mg from 310g to 410g	± 0,0005	≤ 4
HPB 514Ai	510	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3 mg from 220g to 310g 0,35mg from 310g to 510g	± 0,0005	≤ 4
HPB 614Ai	610	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3 mg from 220g to 310g 0,35mg from 310g to 610g	± 0,0005	≤ 4

SEMIMICRO BALANCE

SHPBG-Resolution 0,01 mg



HPB semiMicro with 0.01 mg resolution with automatic internal calibration electromagnetic cell on all models, these scales feature high precision, high repeatability and graphical display and easy operation. The -ION models feature integrated ionization at the back of the scale with the aim of neutralizing static electricity in charged samples such as plastic parts, containers or films for the most accurate results.

Balance Technical Data Common Features	Ionisertechnical Data
Span drift (+10..+30 °C) : +/- 2ppm / °C	Operation modes : 2 minutes or continuously for max 8 hours
Dimensions LxWxH (mm) : 345x215x345	Ozone concentration : 0-0,05 ppm (2 cm from ion source)
Weighing chamber dimensions LxWxH (mm) : 162x171x225	Distance sample-ion source : about 5-40 cm
Dimensions of external electronics box LxWxH : 175x105x50 (mm), weight 500g	Discharge time : 9s/5cm, 13s/10cm
Power supply 110-230Vac, 50/60Hz : Output 24V 500mA 13VA	Ambient conditions : 0-50°C, 20-80% air humidity (non-condensing)
Net Weight 7 Kg	Ioniser power supply : IN AC 100-240V 50/60Hz, Out DC 12V, 500mA
Net Weight -ION models : 7,4 Kg	

Model	Capacity (g)	Resolution (mg)	Pan (mm)	Repeatability (mg)	Linearity (mg)	Response time (sec.)
Automatic internal calibration						
SHPBG-125i-ION	120	0,01	Ø80	0,05	± 0,1 / ± 0,2	≤ 6
SHPBG-165i-ION	160	0,01	Ø80	0,05	± 0,1 / ± 0,2	≤ 6
SHPBG-215i-ION	210	0,01	Ø80	0,05	± 0,1 / ± 0,2	≤ 6

SEMIMICRO BALANCE

HPBG-Resolution 0,01 mg – 0.1 mg



BEL Engineering semi-micro HPB balance with 0.01 mg resolution. Equipped with an electromagnetic cell. Model -ION is equipped with an ionizer for the purpose of neutralizing static electricity on charged objects such as plastics, containers or films.

Features	Accessories
Highly integrated weighing cell	Portable ioniser-A15 (BL0371)
Electromagnetic force restoration weighing system	Serial printer TLP-50, with date/time (C054)
Automatic internal calibration	Serial printer DPP-250 (AC007)
Efficient filtering to deliver quick and accurate result	Density KIT for solids and liquids (AC002)
LCD with backlight with adjustable contrast	Alphanumeric external keyboard (AC005)
Plastic protection cover for keypad	Serial to USB converter (E1002)
Large glass draught shield with 3 sliding doors for easy access to the items being weighed	Factory calibration certificate (BL0333)

TECHNICAL PARAMETERS

Model	Capacity (g)	Resolution (mg)	Pan (mm)	Repeatability (mg)	Linearity (mg)	Response time (sec.)
Automatic internal calibration						
HPBG-425i	42	0,01	Ø80	0,05	± 0,05	≤ 6
HPBG-625i	62	0,01	Ø80	0,05	± 0,08	≤ 6
HPBG-105i	102	0,01	Ø80	0,05	± 0,08	≤ 6
HPBG-1245Di	42/120	0,01/0,1	Ø80	0,02 / 0,1	± 0,05 / ± 0,2	≤ 6
HPBG-1265Di	62/120	0,01/0,1	Ø80	0,03 / 0,1	± 0,08 / ± 0,2	≤ 6
HPBG-2245Di	42/220	0,01/0,1	Ø80	0,02 / 0,1	± 0,1 / ± 0,2	≤ 6
HPBG-2265Di	62/220	0,01/0,1	Ø80	0,03 / 0,1	± 0,1 / ± 0,2	≤ 6
HPBG-2285Di	82/220	0,01/0,1	Ø80	0,05 / 0,1	± 0,1 / ± 0,2	≤ 6
HPBG-22105Di	102/220	0,01/0,1	Ø80	0,05 / 0,1	± 0,1 / ± 0,2	≤ 6
HPBG 414Ai	410	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3mg from 220g to 310g 0,35mg from 310g to 410g	± 0,0005	≤ 4
HPBG 514Ai	510	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3mg from 220g to 310g 0,35mg from 310g to 510g	± 0,0005	≤ 4
HPBG 614Ai	610	0,1	Ø80	0,1 mg if weight ≤ 220g 0,3mg from 220g to 310g 0,35mg from 310g to 610g	± 0,0005	≤ 4



Aczet Analytical Balances



CY/CY C Series

High Contrast LCD Display With LED Backlight for easy viewing Standard RS 232C Interface

Type : CY / CY C Series

- ◆ High Contrast LCD Display with LED Backlight for easy viewing
- ◆ Standard RS 232C Interface. USB is optional
- ◆ Hanger for below balances weighing
- ◆ It performs internal calibration and adjustment automatically with changes in ambient temperature by specific value on defined time interval has elapsed thanks to Perfect Self Auto Calibration
- ◆ Complies to GLP / GMP
- ◆ Spacious draft shield interior
- ◆ Unique & unequalled high end MONO-TECH technology to match the highest international standards



CM / CY C Series

Aczet CM & CY Series, Short Measurement times for weighing result save valuable time during each operation.

Type : CM & CY Series

- ◆ Motorized glass draft shield triggered by with a wave of hand over infrared sensors help working with minimum sample size effortless and fast
- ◆ It performs internal calibration and adjustment automatically with changes in ambient temperature by specific value on defined time interval has elapsed
- ◆ High contrast LCD Display with LED backlight ensures excellent readability.
- ◆ Standard RS 232C Interface. USB is optional
- ◆ Ultra precise weighing of filters with special metal draft shield