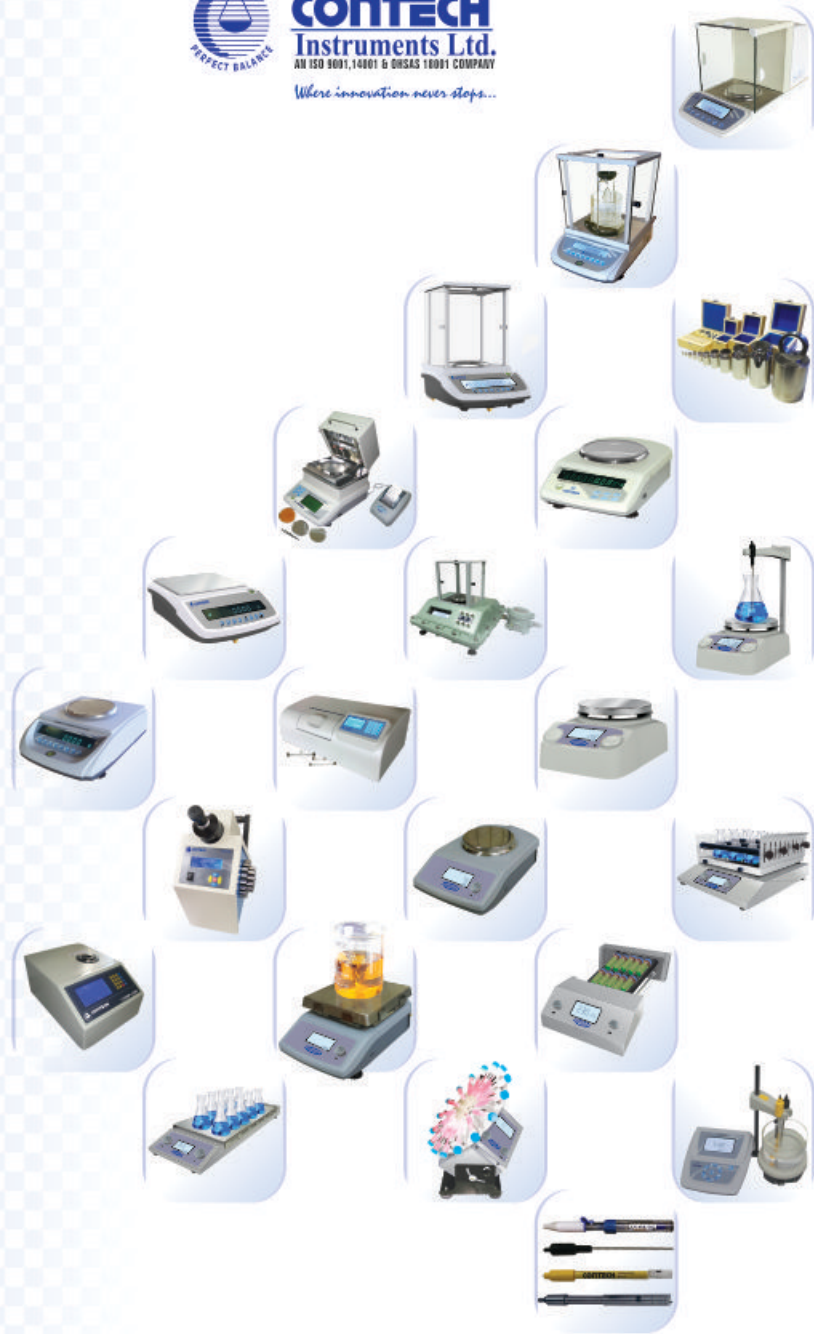




**CONTECH<sup>®</sup>**  
Instruments Ltd.  
AN ISO 9001, 14001 & OHSAS 18001 COMPANY

*Where innovation never stops...*



**Complete range of Electronic Weighing Scales  
& High Precision Laboratory Instruments  
from India's Largest Manufacturer of  
Magnet based Electronic Balances**

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**India's Largest Electro Magnetic Force Compensation (EMFC) Balance Assembly line since 1992**

**CONTECH** Instruments Ltd, an ISO 9001, 14001 & OHSAS 18001 Company established in the year 1992 has an installation base of more than 4 lakh scales all over the world. **CONTECH** is the only Indian manufacturer who has developed and manufactured in true sense the complete range of Electronic Balances from 0.01mg Analytical Balances to 50 ton Crane Scales in its own setup illustrating the technical competence of the Company.



**Advanced EMFC transducer for unmatched accuracy & reliability**

High Precision Balances incorporate advanced Electro Magnetic Force Compensation technology for offering unmatched accuracy and reliability coupled with unique ADC circuit with inbuilt temperature compensation to offer a very high stability upto a resolution of 3 million counts. All adjustment parameters are programmable to take care of any minor mismatch of different sub assemblies & Balances are configured with these parameters.



**Total Inhouse Manufacturing to Achieve OIML Quality Standards**

**CONTECH** has established a state of the art factory in the outskirts of Mumbai covering an area of 18000 sq.ft with most modern equipments and machineries for manufacturing and testing of High Precision Electronic Balances, weighing scales & various laboratory instruments.





**100% Strict Quality Control, Vigorous Testing at Every Stage, Simulation & calibration correction at extreme environment conditions**

Quality has been the backbone of success of **CONTECH** over the years. All Balances are tested for quality and accuracy as per the guidelines laid down by International Organization of Legal Metrology (OIML). Every balance is tested in the walk-in environmental chamber for the extreme temperature from 10 - 50° C & software calibration correction done so as to make the balance display readings within the permissible error limits depending on the accuracy class against standard weights. **CONTECH** provides the test certificates, Quality Certificates for design (DQ), Installation (IQ), Operation (OQ), Performance (PQ) as required by various certifying authorities governing the industry segments.



**High Precision Laboratory Instruments for Chemical, Pharmaceutical & Food processing Industries, Research & Educational Institutes**

**CONTECH**'s vast experience and in depth knowledge of Laboratory needs and Analytical instrumentation has helped it to roll out complete range of High Precision Laboratory Instruments viz. pH, Conductivity, TDS, Dissolved Oxygen, ORP Meters, Multiparameter Meters, Digital Polarimeters, Refractometers, Melting Point Apparatus, Magnetic Stirrers, Hotplate Stirrers, Shakers, Digital Rollers, Digital Rotators, X-Ray Gold Purity Testers, etc.



**Achievements by **CONTECH****

- ▶ 1st prize in the category of Outstanding Industrial Enterprise by federation of small & medium industries, W. B.
- ▶ Nominated for Leaders of Tomorrow Celebrating Entrepreneurship by Indiamart & ET NOW.
- ▶ ISO 9001:2000 from QA International in the year 2004.
- ▶ ISO 9001:2008 from QA International in the year 2010.
- ▶ ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 from UKAS Management System in the year 2014.
- ▶ Certified as member of the Dun & Bradstreet Global Database.
- ▶ Model Approval by Department of Weights & Measures, Ministry of Civil Supplies, Govt. of India.

## LABORATORY BALANCES

### INDIRECT LOADING ANALYTICAL / SEMI MICRO BALANCES 0.00001g to 300g

#### Indirect Loading Analytical / Semi Micro Balances without motorized internal calibration

| Models            | CAS-44  | CAS-84  | CAS-164 | CAS-234 | CAS-304 |
|-------------------|---------|---------|---------|---------|---------|
| Capacity          | 40g     | 80g     | 160g    | 230g    | 300g    |
| Readability       | 0.0001g | 0.0001g | 0.0001g | 0.0001g | 0.0001g |
| Repeatability (+) | 0.1mg   | 0.1mg   | 0.2mg   | 0.2mg   | 0.2mg   |
| Linearity (+)     | 0.2mg   | 0.2mg   | 0.4mg   | 0.4mg   | 0.4mg   |
| Pan Size(mm)      | 100     | 100     | 100     | 100     | 100     |

The balance is supplied with Breeze shield as standard.



#### Indirect Loading Analytical / Semi Micro Balances with motorized internal calibration

| Models            | CAI-35   | CAI-44  | CAI-84  | CAI-164 | CAI-234 | CAI-304 |
|-------------------|----------|---------|---------|---------|---------|---------|
| Capacity          | 30g      | 40g     | 80g     | 160g    | 230g    | 300g    |
| Readability       | 0.00001g | 0.0001g | 0.0001g | 0.0001g | 0.0001g | 0.0001g |
| Repeatability (+) | 0.03mg   | 0.1mg   | 0.1mg   | 0.2mg   | 0.2mg   | 0.2mg   |
| Linearity (+)     | 0.05mg   | 0.2mg   | 0.2mg   | 0.4mg   | 0.4mg   | 0.4mg   |
| Pan Size(mm)      | 100      | 100     | 100     | 100     | 100     | 100     |

The balance is supplied with Breeze shield & Internal motorized calibration as standard.

#### Features of Semi Micro, Analytical, High Precision, Precision & Industrial Precision Balances

- ▶ Multiple weighing units.
- ▶ Standard bi-directional RS-232 interface.
- ▶ Polyfunction : % weighing, counting, fill mode, GSM etc.
- ▶ Backlite LCD display.
- ▶ USB interface (Optional).
- ▶ Motorized internal calibration (Optional).
- ▶ ISO GLP compliance (Optional).
- ▶ Real time clock (RTC) (Optional).
- ▶ Density determination kit (Optional).
- ▶ Weigh below hook for density determination (Optional).
- ▶ Yarn count with temperature compensation (Optional).
- ▶ Denier measurement for silk & synthetic yarn (Optional).
- ▶ Cocoon assessment with statistical analysis for cocoons (Optional).
- ▶ Software for SQC (Statistical Quality Control) for Pharmaceutical Industries (Optional).



### TOP LOADING ANALYTICAL BALANCES 0.0001g to 220g

#### Direct Loading Analytical Balances without motorized internal calibration

| Models            | CAC - 34 | CAC-64  | CAC-124 | CAC-224 |
|-------------------|----------|---------|---------|---------|
| Capacity          | 30g      | 60g     | 120g    | 220g    |
| Readability       | 0.0001g  | 0.0001g | 0.0001g | 0.0001g |
| Repeatability (+) | 0.2mg    | 0.2mg   | 0.3mg   | 0.3mg   |
| Linearity (+)     | 0.3mg    | 0.3mg   | 0.4mg   | 0.4mg   |
| Pan Size(mm)      | 100      | 100     | 100     | 100     |

The balance is supplied with Breeze shield as standard.

#### Direct Loading Analytical Balances with motorized internal calibration

| Models            | CAI - 34 | CAI-64  | CAI-124 | CAI-224 |
|-------------------|----------|---------|---------|---------|
| Capacity          | 30g      | 60g     | 120g    | 220g    |
| Readability       | 0.0001g  | 0.0001g | 0.0001g | 0.0001g |
| Repeatability (+) | 0.2mg    | 0.2mg   | 0.3mg   | 0.3mg   |
| Linearity (+)     | 0.3mg    | 0.3mg   | 0.4mg   | 0.4mg   |
| Pan Size(mm)      | 100      | 100     | 100     | 100     |

The balance is supplied with Breeze shield & Internal motorized calibration as standard.

#### High Precision Balances with motorized internal calibration

| Models           | CAH-123 | CAH-223 | CAH-323 | CAH-413 | CAH-503 | CAH-603 | CAH-803 | CAH-1003 |
|------------------|---------|---------|---------|---------|---------|---------|---------|----------|
| Capacity         | 120g    | 220g    | 320g    | 410g    | 500g    | 600g    | 800g    | 1000g    |
| Readability      | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g   |
| Repeatability(+) | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.002g  | 0.002g  | 0.002g  | 0.002g   |
| Linearity(+)     | 0.001g  | 0.002g  | 0.002g  | 0.002g  | 0.002g  | 0.003g  | 0.004g  | 0.004g   |
| Pan Size(mm)     | 100     | 100     | 100     | 100     | 100     | 100     | 100     | 100      |

The balance is supplied with Breeze shield & Internal motorized calibration as standard.

### HIGH PRECISION BALANCES 0.001g to 1000g



#### High Precision Balances without motorized internal calibration

| Models           | CBB-50 | CAH-123 | CAH-223 | CAH-323 | CAH-413 | CAH-503 | CAH-603 | CAH-803 | CAH-1003 |
|------------------|--------|---------|---------|---------|---------|---------|---------|---------|----------|
| Capacity         | 50g    | 120g    | 220g    | 320g    | 410g    | 500g    | 600g    | 800g    | 1000g    |
| Readability      | 0.001g | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.001g   |
| Repeatability(+) | 0.001g | 0.001g  | 0.001g  | 0.001g  | 0.001g  | 0.002g  | 0.002g  | 0.002g  | 0.002g   |
| Linearity(+)     | 0.001g | 0.001g  | 0.002g  | 0.002g  | 0.002g  | 0.002g  | 0.003g  | 0.004g  | 0.004g   |
| Pan Size(mm)     | 100    | 100     | 100     | 100     | 100     | 100     | 125     | 125     | 125      |

The balance is supplied with Breeze shield as standard.



0.01g-1000g



0.01g-3000g

### PRECISION BALANCES 0.01g to 5kg



0.01g-5000g

| Models            | CBB-600 | CBB-1000 | CA-1202 | CBB-360D    | CBB-600D    | CBB-603D    | CBB-1000D   |
|-------------------|---------|----------|---------|-------------|-------------|-------------|-------------|
| Capacity          | 600g    | 1000g    | 1200g   | 60/300g     | 300/600g    | 100/600g    | 500/1000g   |
| Readability       | 0.01g   | 0.01g    | 0.01g   | 0.001/0.01g | 0.005/0.01g | 0.001/0.01g | 0.005/0.01g |
| Repeatability (+) | 0.01g   | 0.01g    | 0.01g   | 0.001/0.01g | 0.005/0.01g | 0.002/0.01g | 0.01/0.02g  |
| Linearity (+)     | 0.01g   | 0.02g    | 0.02g   | 0.002/0.02g | 0.005/0.02g | 0.002/0.02g | 0.01/0.02g  |
| Pan Size(mm)      | 125     | 125      | 150     | 100         | 125         | 100         | 125         |

| Models            | CAC-1502 | CAC-2202 | CA-3102 | CA-4102 | CA-5002 | CBB-3600D | CBB-4000D  |
|-------------------|----------|----------|---------|---------|---------|-----------|------------|
| Capacity          | 1500g    | 2200g    | 3100g   | 4100g   | 5000g   | 600/3000g | 1000/4000g |
| Readability       | 0.01g    | 0.01g    | 0.01g   | 0.01g   | 0.01g   | 0.01/0.1g | 0.01/0.1g  |
| Repeatability (+) | 0.01g    | 0.02g    | 0.02g   | 0.02g   | 0.02g   | 0.02/0.2g | 0.02/0.2g  |
| Linearity (+)     | 0.02g    | 0.03g    | 0.03g   | 0.03g   | 0.03g   | 0.03/0.3g | 0.04/0.4g  |
| Pan Size(mm)      | 165x175  | 165x175  | 150 dia | 150 dia | 150 dia | 150 dia   | 150 dia    |

6 CAC models can be provided with motorized internal calibration (optional).



## INDUSTRIAL PRECISION BALANCES

0.1g to 10kg

|                            |          |          |
|----------------------------|----------|----------|
| <b>Models</b>              | CBI-6001 | CBI-8001 |
| <b>Capacity</b>            | 6000g    | 8000g    |
| <b>Readability</b>         | 0.1g     | 0.1g     |
| <b>Repeatability (+/-)</b> | 0.2g     | 0.2 g    |
| <b>Linearity (+/-)</b>     | 0.3g     | 0.3 g    |
| <b>Pan Size(mm)</b>        | 210x260  | 210x260  |



### Common specifications for all Laboratory Balances

Taring Range : Up to full capacity  
Response time : 3 seconds  
Power Req : 90-250V, 50/60Hz, 10 Watt  
Operating Temperature : 15 to 45 deg C



Range :  
0.1 mg – 300g  
1mg – 1000g

## DENSITY BALANCES

0.1 mg - 10 kg

- Density Determination Kit is available in 2 types one to be mounted on the pan and the other type is with attachment for weigh below the balance. Density Determination Kit consists density weighing pan assembly, stainless steel base for beaker, glass beaker, optional sinker for testing materials having density less than water and software (program) for density determination.
- Facility for programming density of liquid (other than water) and temperature of water.
- In case of multiple samples, storage of all the sample weights in air first and then in water, viewing of density of individual samples one by one on the display.
- Determination of density of liquid samples (Optional).
- Determination of air release value for oil samples (Optional).

## FLAMEPROOF BALANCES

0.1 mg - 5 kg



Range :  
0.1 mg – 300g  
1mg – 1000g  
0.01g – 3kg  
0.1g – 5kg

Flameproof cum weather proof enclosure with glass window, push button, rotary switch in cast aluminium construction in compliance with requirements in respect of flameproofness and temperature class suitable for use in Zone 1 & Zone 2 and gas groups IIA & IIB atmospheres. Certified by Central Institute of Mining & Fuel Research, Govt. of India.

## MOISTURE BALANCES

0.001g to 220g



| Models      | CBB-50 (M) | CAH-123 (M) | CAH-223 (M) |
|-------------|------------|-------------|-------------|
| Capacity    | 50g        | 120g        | 220g        |
| Readability | 0.001g     | 0.001g      | 0.001g      |
| Pan Size    | 100 mm     | 100 mm      | 100 mm      |

- ▶ Easy & Fast Moisture Determination.
- ▶ 3 types of Testing Methods:- Manual, Time Programmable, Automatic.
- ▶ Weighing based on EMFC technique
- ▶ Heating by infrared halogen tube heater.
- ▶ Temperature range upto 200°C (1°C).
- ▶ Moisture range : 0.1% to 100%
- ▶ Moisture measurement : Unit- % wet base  
% dry base  
dry weight  
% dry to wet weight
- ▶ Display of time, temperature, weight & percentage moisture.
- ▶ Graphical Backlite LCD for displaying weight, setup parameters, testing parameters & results.
- ▶ RS-232 interface for connecting to a computer/printer.
- ▶ Data storage upto 50 tests.
- ▶ 10 programmable memory.
- ▶ Time based moisture loss on the graphical display.
- ▶ Study of pattern of moisture loss by printing/display on computer screen of online data - elapsed time, present sample weight and percentage moisture loss. Elapsed time Interval can be programmed - 10,20,30,60 & 120 seconds.

Contech Moisture Analyzer incorporates rapid Halogen heating with EMFC precision weighing technology to determine moisture content of samples quickly & effectively.

### Moisture Content :

**Accuracy** : 0.1% for sample above 5g  
**(std. dev.)** : 0.5% for sample below 5g  
**Resolution** : 0.1%

### Specifications

Taring Range : Up to full capacity  
 Power Req : 90-250V, 50/60Hz, 550 Watt  
 Operating Temperature : 15 to 45 deg C

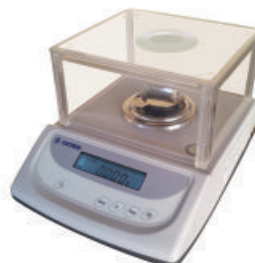


## GEM AND JEWELLERY SCALES

### CARAT SCALES

0.001g to 50g

| Models            | CTL-20 | CTL-50 |
|-------------------|--------|--------|
| Capacity          | 20g    | 50g    |
| Readability       | 0.001g | 0.001g |
| Repeatability (+) | 0.001g | 0.001g |
| Linearity (+)     | 0.001g | 0.002g |
| Pan Size (mm ø)   | 50     | 50     |



### GOLD SCALES

0.01g to 3Kg

| Models          | CTL-300 | CTL-600 | CTB-1001 | CTL-1201 | CTL-3001 |
|-----------------|---------|---------|----------|----------|----------|
| Capacity        | 300g    | 600g    | 1000g    | 1200g    | 3000g    |
| Readability     | 0.01g   | 0.01g   | 0.1g     | 0.1g     | 0.1g     |
| Pan Size (mm ø) | 115     | 115     | 125      | 125      | 150      |



### SILVER SCALES

0.1g to 15Kg

#### Common features for Carat, Gold & Silver Scales

- ▶ Incorporate high quality loadcells.
- ▶ Multiple weighing units, gram & carat.
- ▶ Piece counting facility.
- ▶ RS-232 bi directional interface.
- ▶ Power saving mode.
- ▶ Overload and shockload protection.
- ▶ Weight slip printing (Optional).
- ▶ Bright Red LED Display.
- ▶ High bright green LED Display (Optional).
- ▶ Battery Backup (Optional).
- ▶ Additional Display (Optional).
- ▶ Breeze shield (Optional).



| Models            | CTM-6001 | CTM-10001 | CTM-15002 | CTM-15005 | CTT-10K1 | CTH-15001 |
|-------------------|----------|-----------|-----------|-----------|----------|-----------|
| Capacity          | 6kg      | 10kg      | 15kg      | 15kg      | 10kg     | 15kg      |
| Readability       | 0.1g     | 0.1g      | 0.2g      | 0.5g      | 1g       | 0.1g      |
| Repeatability (+) | 0.1 g    | 0.1 g     | 0.2 g     | 0.5g      | 1g       | 0.1g      |
| Linearity (+)     | 0.2 g    | 0.2 g     | 0.4 g     | 1.0 g     | 2g       | 0.2g      |
| Pan Size (mm)     | 190x250  | 190x250   | 190x250   | 190x250   | 190x250  | 190x250   |

#### Common specifications for Gem & Jewellery Scales

Taring Range : Up to full capacity  
 Response time : 3 secs  
 Power Req : 90-250V, 50/60Hz, 10 Watt  
 Operating Temperature : 15 to 45 deg C

## SUPER MARKET SCALES

### RETAIL SCALES

1g to 35Kg



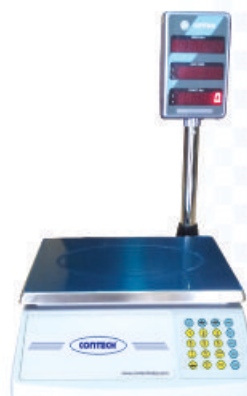
| Models           | CT-30K1 | CT-30K2 | CT-35K2 |
|------------------|---------|---------|---------|
| Capacity         | 30kg    | 30kg    | 35kg    |
| Readability      | 1g      | 2g      | 2g      |
| Repeatability(+) | 1g      | 2g      | 2g      |
| Linearity (+)    | 2g      | 2g      | 2g      |
| Pan Size (mm)    | 225x300 | 225x300 | 225x300 |

- ▶ Bright LED display.
- ▶ Clear and bright extra display for customer viewing at a distance.
- ▶ 100% tare facility.
- ▶ Net and Gross weight indication.
- ▶ Accumulation of weights in memory.
- ▶ RS-232 interface to connect to a computer/printer.
- ▶ Audio visual overload indication.
- ▶ Optional battery backup.

### PRICE COMPUTING SCALES

1g to 35Kg

| Models           | CTC-30K1 | CTC-30K2 | CTP-35K5 |
|------------------|----------|----------|----------|
| Capacity         | 30kg     | 30kg     | 35kg     |
| Readability      | 1g       | 2g       | 5g       |
| Repeatability(+) | 1g       | 2g       | 5g       |
| Linearity (+)    | 2g       | 2g       | 5g       |
| Pan Size (mm)    | 225x300  | 225x300  | 225x300  |



- ▶ Can store price of items with their names (up to 500 nos)
- ▶ Bill printing facility.
- ▶ Facility to price addition for pre-packed items.
- ▶ Facility to enter shop name and address.
- ▶ Per kg or per 100g rate selection.
- ▶ Facility to accumulate transaction data.
- ▶ Computes total sales of all items along with their weights.
- ▶ Date and Time entry facility.
- ▶ Tactile keyboard making it dust & moisture resistant for long lasting and reliable operation.
- ▶ Different displays for weight, unit price and total price.
- ▶ Display on both sides on the pole.
- ▶ Mini Printer & Label Printer (Optional)

## HEALTH SCALES

### ADULT SCALES

10g to 150Kg

|                    |           |
|--------------------|-----------|
| <b>Models</b>      | CP-150K10 |
| <b>Capacity</b>    | 150kg     |
| <b>Readability</b> | 10g       |
| <b>Pan Size</b>    | 300x300mm |

- ▶ Rugged construction suitable for school, gym, sports.
- ▶ Stainless Steel Pan.
- ▶ LED Display.
- ▶ Battery backup.
- ▶ Storage of weights in memory upto 100 weights.
- ▶ Rs232 interface for computer & printer.
- ▶ Multiple weighing units Gram, Kilo gram, pound.



### KITCHEN SCALES

0.1g to 5Kg

|                      |         |         |
|----------------------|---------|---------|
| <b>Models</b>        | CTB-601 | CTB-5K1 |
| <b>Capacity</b>      | 600g    | 5kg     |
| <b>Readability</b>   | 0.1g    | 1g      |
| <b>Pan Size (mm)</b> | 150x150 | 150x150 |

- ▶ Compact design.
- ▶ Easy carrying option.
- ▶ Battery powered.
- ▶ LCD display.
- ▶ Optional power eliminator.



### BABY WEIGHING SCALES

5g to 20Kg

|                      |           |
|----------------------|-----------|
| <b>Models</b>        | CT-20K5   |
| <b>Capacity</b>      | 20Kg      |
| <b>Readability</b>   | 5g        |
| <b>Pan Size (mm)</b> | 490 x 280 |

- ▶ Overload and shock load protection.
- ▶ Bright LED display.
- ▶ Large Pan Size.
- ▶ Pan Electrically Insulated from the scale for safety.
- ▶ Optional battery backup.





## INDUSTRIAL SCALES



### TABLE TOP SCALES 0.1g to 35Kg

| Models        | CTH-15001 | CTH-30002 | CT-30K1   | CT-35K2   |
|---------------|-----------|-----------|-----------|-----------|
| Capacity      | 15kg      | 30kg      | 30kg      | 35kg      |
| Readability   | 0.1g      | 0.2g      | 1g        | 2g        |
| Linearity (+) | 0.2g      | 0.4g      | 2g        | 5g        |
| Pan Size (mm) | 225 x 300 | 225 x 300 | 225 x 300 | 225 x 300 |

- ▶ Incorporate high quality loadcells
- ▶ Multiple weighing units, Gram, Kilo gram, carat, litre, pound
- ▶ Piece counting facility, upto 25 different types
- ▶ Storage of weights in memory and printing, upto 100 weights.
- ▶ Power saving mode
- ▶ Bi-directional RS232 interface to connect with computers and printers
- ▶ Set point facility up to 2 limits.
- ▶ Auto power off
- ▶ Peak hold facility (Optional).
- ▶ Date and time facility
- ▶ Multiple print options with Sr. No, date, time and weight in horizontal/vertical mode.
- ▶ Automatic zero tracking.
- ▶ User selectable Tare/Zero mode option with Net/gross facility for minimum use.
- ▶ Overload & Shock load Protection
- ▶ Bright LED display, high Bright Green LED display (optional)
- ▶ Battery backup (optional). Rechargeable sealed maintenance free battery
- ▶ Additional display (optional)



### PIECE COUNTING SCALES 0.5g to 35Kg

| Models           | CTC-6001 | CTC-10002 | CTC-15005 | CTC-30K1 | CTP-35K5 |
|------------------|----------|-----------|-----------|----------|----------|
| Capacity         | 6kg      | 10kg      | 15kg      | 30kg     | 35kg     |
| Readability      | 0.1g     | 0.2g      | 0.5g      | 1g       | 5g       |
| Repeatability(+) | 0.1g     | 0.2g      | 0.5g      | 1g       | 5g       |
| Linearity (+)    | 0.2g     | 0.4g      | 1g        | 2g       | 5g       |
| Pan Size (mm)    | 225x300  | 225x300   | 225x300   | 225x300  | 225x300  |

| Models           | CP-75K5 | CP-100K10 | CP-200K20 | CP-300K20 | CP-500K50 | CP-1T100  |
|------------------|---------|-----------|-----------|-----------|-----------|-----------|
| Capacity         | 75kg    | 100kg     | 200kg     | 300kg     | 500kg     | 1ton      |
| Readability      | 5g      | 10g       | 20g       | 20g       | 50g       | 100g      |
| Repeatability(+) | 5g      | 10g       | 20g       | 20g       | 50g       | 100g      |
| Linearity (+)    | 10g     | 20g       | 40g       | 40g       | 100g      | 200g      |
| Pan Size(mm)     | 400x400 | 450x500   | 600x600   | 600x600   | 750x750   | 1000x1000 |

- ▶ 3 separate display to indicate weight, unit weight and quantity.
- ▶ Numeric keyboard for easy entry of unit weight/sample quantity.
- ▶ Automatic count improvement mode.
- ▶ Resettable set points for check counting
- ▶ Comparator function with audio indication (buzzer)
- ▶ Accumulation and recalling of counts with date/time.
- ▶ Optional comparator with relay outputs.
- ▶ Print option with date/time, count and weight.



### WATER PROOF TABLE TOP SCALES AND SCALES WITH WATER PROOF PLATFORM & S. S. INDICATOR

0.1g to 60kg

|                          |         |         |         |          |
|--------------------------|---------|---------|---------|----------|
| <b>Models</b>            | CT-3005 | CT-6K1  | CP-30K5 | CP-60K10 |
| <b>Capacity</b>          | 3kg     | 6kg     | 30kg    | 60kg     |
| <b>Readability</b>       | 0.5g    | 1g      | 5g      | 10g      |
| <b>Linearity (+)</b>     | 1.0g    | 2g      | 10g     | 20g      |
| <b>Platform Size(mm)</b> | 220x280 | 220x280 | 400x400 | 400x400  |

- ▶ Available in table top and platform type.
- ▶ Optional IP 67/IP 68 SS loadcell.
- ▶ SS 202, Stainless steel construction
- ▶ Optional SS 304 & SS 316 material.
- ▶ Loadcell totally protected from ingress of water.

### PALLET SCALES

200g to 2 ton

Four loadcell based Pallet Scales

|                    |           |          |
|--------------------|-----------|----------|
| <b>Model</b>       | CPL-1T500 | CPL-2T1K |
| <b>Capacity</b>    | 1 ton     | 2 ton    |
| <b>Readability</b> | 500g      | 1Kg      |



- ▶ Optional Battery Backup.
- ▶ Overload and shock load protection.
- ▶ 100% subtractive taring range.
- ▶ Standard bi-directional RS-232 Interface.
- ▶ Audio visual overload indication.
- ▶ Piece counting, filling, printing, accumulation, weighing in multiple units.
- ▶ Available GLP compliant model in complete SS material for food, pharmaceutical industries



## PLATFORM SCALES

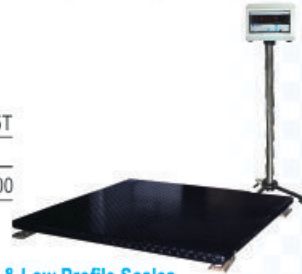
5g to 1 ton

|                           |         |           |           |           |           |           |
|---------------------------|---------|-----------|-----------|-----------|-----------|-----------|
| <b>Models</b>             | CP-75K5 | CP-100K10 | CP-200K20 | CP-300K20 | CP-500K50 | CP-1T100  |
| <b>Capacity</b>           | 75kg    | 100kg     | 200kg     | 300kg     | 500kg     | 1ton      |
| <b>Readability</b>        | 5g      | 10g       | 20g       | 20g       | 50g       | 100g      |
| <b>Platform Sizes(mm)</b> | 400x400 | 450x500   | 600x600   | 600x600   | 750x750   | 1000x1000 |

## FLOOR SCALES

200g to 5 ton

|                           |           |           |           |
|---------------------------|-----------|-----------|-----------|
| <b>Capacity</b>           | CPL-1T/2T | CPL-2T/3T | CPL-3T/5T |
| <b>Readability</b>        | 200g/500g | 500g      | 1kg/2kg   |
| <b>Platform Sizes(mm)</b> | 1200x1200 | 1500x1500 | 2000x2000 |



### Common features of Platform Scales, Floor Scales & Low Profile Scales

- ▶ Indicator housed in a sturdy metal enclosure.
- ▶ Bright LED display.
- ▶ Multiple functions: Parts counting, accumulation, net/gross.
- ▶ Standard bi-directional RS-232 interface.
- ▶ Overload & shock load protection.
- ▶ Bright Red LED display.
- ▶ High bright green LED display (optional).
- ▶ Battery backup (optional).
- ▶ Rechargeable sealed maintenance free battery.

## STAINLESS STEEL LOW PROFILE SCALES

100g to 2ton

|                          |             |             |           |           |
|--------------------------|-------------|-------------|-----------|-----------|
| <b>Models</b>            | CPL-300K200 | CPL-500K200 | CPL-1T500 | CPL-2T1K  |
| <b>Capacity</b>          | 300kg       | 500kg       | 1ton      | 2ton      |
| <b>Readability</b>       | 200g        | 200g        | 500g      | 1kg       |
| <b>Repeatability (+)</b> | 200g        | 200g        | 500g      | 1kg       |
| <b>Linearity (+)</b>     | 400g        | 500g        | 1kg       | 2kg       |
| <b>Platform Size(mm)</b> | 750x750     | 1000x1000   | 1000x1000 | 1200x1200 |

- ▶ Low Profile construction with S.S. ramp (Optional) to avoid pit in production area.
- ▶ Incorporates multiple number (4 nos) of high quality stainless steel IP 67/68 shear beam loadcells.
- ▶ Stainless Steel S.S. 202 Platform (S.S.304/ S.S.316 optional).
- ▶ Stainless Steel IP67 GLP compliant Indicator with Real Time Clock (Optional).
- ▶ Large LCD display with white backlite.





## CRANE SCALES

### STANDARD CRANE SCALES



| MODELS      | CAPACITY | ACC  |
|-------------|----------|------|
| CCS-500K100 | 500Kg    | 100g |
| CCS-1T200   | 1Ton     | 200g |
| CCS-2T500   | 2Ton     | 500g |
| CCS-3T1K    | 3 Ton    | 1Kg  |
| CCS-5T2K    | 5Ton     | 2Kg  |
| CCS-10T/5K  | 10Ton    | 5Kg  |
| CCS-15T/5K  | 15Ton    | 5kg  |
| CCS-20T/5K  | 20Ton    | 5Kg  |
| CCS-30T/10K | 30Ton    | 10kg |
| CCS-40T/20K | 40Ton    | 20kg |
| CCS-50T/20K | 50Ton    | 20kg |

- ▶ Rugged aluminum diecast enclosure for Models upto 20 ton.
- ▶ Steel heavy duty enclosure for Models above 20 ton.
- ▶ 25 mm height LED display for Models upto 20 ton & 38 mm height LED display for Models above 20 ton.
- ▶ Maximum safety overload 200%.
- ▶ Inbuilt sealed maintenance free re-chargeable battery and Battery charger (Optional)
- ▶ RF keyboard, operating distance 20mtr. (optional)
- ▶ RS-232 Interface (Optional)
- ▶ Multiple print options with Sr. No, Date, Time & Weight in horizontal / vertical mode.
- ▶ Date & Time entry facility.
- ▶ Multiple weighing units.
- ▶ Storage of weights in memory upto 100 samples.
- ▶ Power saving by switching off the display.
- ▶ Automatic zero tracking.
- ▶ Software linearity correction.
- ▶ Display hold facility.
- ▶ Gross & Net Weight function.

### STANDARD CRANE SCALES with Wireless Indicator

- ▶ Wireless transmission maximum operating distance between the Scale and Indicator is 50 mtr.
- ▶ All specifications are same as standard crane scales (CCS) except there is no display on the scale and there is no RF keyboard.
- ▶ Power indication LED on the scale.
- ▶ Battery & charger for the loadcell & transmitter inside the scale.
- ▶ Weight display on the desktop indicator along with controls.
- ▶ RS-232 interface in the indicator.
- ▶ Indicator with optional battery backup.
- ▶ Date & time entry facility.
- ▶ Storage of weights in memory upto 100 samples.
- ▶ Display hold facility.



### CRANE SCALES with Heat Insulating Shield

- ▶ Special construction for high temperature shielding.
- ▶ Minimum distance for normal operation is 2 mtr from a heat radiation source at 1500° C.
- ▶ Heavy duty aluminum diecast enclosure.

| MODELS     | CAPACITY | ACC  |
|------------|----------|------|
| CCS-1T200  | 1Ton     | 200g |
| CCS-2T500  | 2Ton     | 500g |
| CCS-3T1K   | 3 Ton    | 1Kg  |
| CCS-5T2K   | 5Ton     | 2Kg  |
| CCS-10T/5K | 10Ton    | 5Kg  |
| CCS-15T/5K | 15Ton    | 5kg  |



### CRANE SCALES with Heat Insulating Shield & Wireless Indicator

- ▶ Wireless transmission maximum operating distance between the Scale and Indicator is 50 mtr.
- ▶ All specifications are same as standard crane scales with heat insulating shield(CCS) except there is no display on the scale and there is no remote keyboard.
- ▶ Power indication LED on the scale.
- ▶ Battery & charger for the loadcell & transmitter inside the scale.
- ▶ Weight display on the desktop indicator along with controls.
- ▶ RS-232 interface in the indicator.
- ▶ Storage of weights in memory upto 100 samples.



### CRANE SCALES Wireless Transmission, High-temperature Thermal Insulation and Armored Type

| MODELS      | CAPACITY | ACC  | NET WT. (Kg) |
|-------------|----------|------|--------------|
| CCS-30T/20K | 30000Kg  | 20Kg | 370          |
| CCS-50T/50K | 50000Kg  | 50Kg | 750          |

- ▶ Special design for high-temperature thermal insulation use, with normal operation at least 2m away from heat radiation source at 1500°C.
- ▶ High-strength alloy steel.
- ▶ U-shaped structure with compression-typed sensor.
- ▶ Wireless transmission distance between scale & indicator is 50m (approx).
- ▶ Maximum safety overload : 125% F.S.
- ▶ Limited overload : 400% F.S.



## WEIGHING INDICATORS

Contech Platform Scales / Systems are offered with various types of Indicators for different working ambience and application.

### UNIVERSAL INDICATORS

- ▶ Selectable weighing capacity and least count through keyboard.
- ▶ High speed A/D conversion.
- ▶ Full digital calibration through keyboard enabling easy replacement of Indicator in the system.
- ▶ 3 point linearity correction.
- ▶ Optional Battery Backup.
- ▶ Bright LED Display.
- ▶ RS-232 Interface (optional).



### BATCH WEIGHING INDICATORS

- ▶ High Speed A/D conversion.
- ▶ Full Digital calibration through keyboard enabling easy replacement of indicator in the system.
- ▶ 3 Point Linearity correction.
- ▶ Selectable weighing ranges.
- ▶ Optional Real time clock.
- ▶ Set point comparison for batching application.
- ▶ Maximum 2 NO/NC potential free relay contacts.
- ▶ Panel mounting or Desktop.
- ▶ Optional battery backup.
- ▶ Bright LED Display.
- ▶ RS-232 Interface (Standard).



### FLAMEPROOF INDICATORS

- ▶ Cast aluminium construction in compliance with requirements in respect of flameproofness and temperature class suitable for use in Zone 1 & Zone 2 and gas groups IIA & IIB atmospheres. Certified by Central Institute of Mining & Fuel Research, Govt. of India.
- ▶ High Speed A/D conversion.
- ▶ Optional battery backup.
- ▶ Bright LED Display.
- ▶ Suitable port along with cable glands for the power inlet & loadcell connection.
- ▶ Loadcell connection through Zenner Barrier.



### STAINLESS STEEL INDICATORS

- ▶ High protection grade stainless steel housing, Waterproof IP65.
- ▶ GLP Compliant suitable for food, pharmaceutical industries (Optional).
- ▶ Real Time Clock (RTC) (Optional).
- ▶ S.S. 304 material (Optional).
- ▶ Large size Backlite LCD display.
- ▶ RS-232 interface to connect to a computer / printer. (Standard).

#### Common Specifications

Taring Range : Up to full capacity  
Response time : 3 secs  
Power Req : 90-250V, 50/60Hz, 10 Watt  
Operating Temperature : 15 to 45 deg C



### WIRELESS INDICATORS

- ▶ Fitted with radio frequency receiver for the reception of load signal from a loadcell fitted with radio frequency transmitter. Maximum distance upto 50 mtrs.
- ▶ All specifications are same as Universal Indicators.





## SCALES FOR SPECIAL APPLICATIONS

### MILK BOWL WEIGHING SYSTEMS

100 g - 500 kg

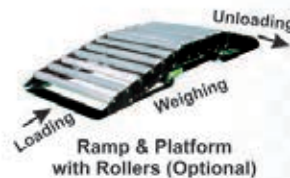
|          |         |         |
|----------|---------|---------|
| Model    | 300K100 | 500K100 |
| Capacity | 300 kg  | 500 kg  |
| Accuracy | 100 g   | 100 g   |

- ▶ Platform Scales for small milk collection centers and Bowl type scales for big Dairy Farms.
- ▶ Programmable conversion factor for kilograms to litre.
- ▶ RS-232 for computer interface.
- ▶ Rugged construction to withstand rough usage in dairy farms.
- ▶ Optional stainless steel construction.
- ▶ Optional stainless steel bowl in S.S.304.



### RAMP & ROLLERS FOR PLATFORM SCALES

For ease of loading and unloading of carboy and drums filled with chemicals the platform scales are provided with ramps, rollers on the ramps on one side or both the sides and rollers on platform of the scale. Rollers available in M.S. Material with Zinc passivation or S.S. 202 or S.S. 304 depending on the need.



### STATIC CHECK WEIGHING SYSTEMS

- ▶ Programmable 1 or 2 limits setting.
- ▶ Status indication - weight under, weight Ok, weight over.
- ▶ Illuminated status on tower display for clear and distant viewing.
- ▶ Red, Yellow & Green for different status indication.
- ▶ Different colours can be programmed for any status.
- ▶ Programmable blinking or permanent status indication.
- ▶ Audio indication.
- ▶ Can be offered with any type of scale.



### CUSTOMISED WEIGHING SYSTEMS

- ▶ Design and development of customized weighing requirement.
- ▶ Automation of weighing and material handling.
- ▶ Incorporation of customized software for better tracking and productivity.
- ▶ Wireless remote weighing, incase of a requirement.



## BALANCE ACCESSORIES

### AUXILIARY DISPLAY ATTACHED TO THE BALANCE ON THE POLE

In the scales used for trading, a second display facing opposite side of the user attached to the scale on the pole for a clear viewing by the customer is offered. LED or VFD display as per the provision in the scale.



### AUXILIARY DISPLAY (REMOTE WIRED)

Auxiliary display is provided with cable for viewing at a distance away from the scale which can be placed on the table top or mounted on the wall. The Auxiliary display is available in LED or VFD as per the provision in the scale.



### SWITCH MODE POWER SUPPLY (SMPS)

Contech scales are supplied with SMPS which provides required DC voltages for the operation of the scale circuit. SMPS operates on a high frequency and hence the circuit becomes efficient & compact. The input AC power voltage span is 100-270V, AC, 50/60Hz and hence with SMPS, the scale can operate on both 110V and 220V AC supply.



### BATTERY BACKUP

Battery backup unit is an online uninterrupted power supply providing adequate voltages for the operation of the balance in case of power failure. Battery Backup unit incorporates sealed maintenance free lead acid batteries with a charger and under voltage and over voltage protection circuit.



### BREEZE SHIELD

Contech provides glass breeze shield as standard with EMFC balances having accuracy of 1mg or better to shield the weighing area from breeze. For balances with accuracy less than 1mg, breeze shield can be provided as optional. Different types of Breeze Shields are available based on the model and application.



### MINI PRINTER

Printer having serial port can be connected to all Contech scales with RS-232 interface for printing weight data. Different applications can generate various reports which can be printed on the serial printer. GLP software with inbuilt RTC allows for the composition of GLP procedures for calibration test and calibration report with date and time on a printer connected to the serial port of the balances.



Thermal Printer

Dot Matrix Printer

### MOTORIZED CALIBRATION

Fully automatic calibration accomplished by a smooth noiseless motor driven standard weight inside the balance eliminating weight maintenance. Accurately machined stainless steel standard weight is used for the purpose. Any tolerance in the weight machining is corrected through software. Balance can be programmed to initiate the motorized calibration process every time when it is switched ON, change in the ambient temperature, at a preset time to recalibrate the balance.



### FLAMEPROOF JUNCTION BOX

Flameproof cum weatherproof junction box in cast aluminium with multiple ports and cable glands for inlet and outlet connection of loadcells in compliance with requirements in respect of flameproofness and temperature class suitable for use in Zone 1 & Zone 2 and gas groups IIA & IIB atmospheres. Certified by Central Institute of Mining & Fuel Research, Govt. of India.



### ANTI VIBRATION TABLE FOR ANALYTICAL BALANCE

1. Anti vibration table is ideal for R & D, testing & QC laboratories located in a setup subjected to high vibrations due to operation of machines.
2. Anti vibration table is designed for placing analytical & lab balances used for high precision weighing.
3. Anti vibration table top is provided with granite surface plate with high accuracy finish.
4. Damping of vibration is provided at two locations, one below the granite top surface & second at the bottom leveling feet which can also help in proper leveling of the table.



## FORCE TESTING INSTRUMENTS

### DIGITAL FORCE MEASURING GAUGE

Contech digital force measuring gauge is a device used for measuring axial force. This can be used as handheld instrument or attached to a testing bench.

#### Features :

- Measures compression (push) or tension (pull) forces.
- Operates on electrical power/battery.
- RS232 serial interface for computer connection.
- Various models from 10 to 500 N.
- Measurement Resolution upto 5000 counts.
- Measurement units in g,kg,N.
- Peak hold functions.
- Incorporates high quality loadcells.
- Calibration facility (Optional).
- Storage facility for 100 data.
- Set point facility.



### BOTTLE CAP TORQUE TESTER

Contech bottle torque tester is used for measuring the torque required to open the cap of bottles.

#### Features :

- Operates on electrical power/battery.
- RS232 serial interface for computer connection.
- Capacity : 0-100Kg cm/10 N-m
- Units : Kg-cm/N-m
- Bottle diameter : upto 200mm
- Accuracy :  $\pm 0.5\%$
- Over load safety.
- Peak hold function.
- Backlite LCD display.
- Calibration facility (Optional).
- Storage facility for 100 data.

### DIGITAL SPRING TESTER

Contech Spring tester is used for checking the spring in tension & compression modes.

#### Features :

- Measures compression (push) or tension (pull) forces.
- Operates on electrical power/battery.
- Rs232 serial interface for computer connection.
- Capacity : upto 30Kgf
- Units : Kg-cm/N-m
- Universal, compression & tension type.
- Accuracy :  $\pm 0.5\%$
- Accessories : compression pad or tension hooks.
- Peak hold function.
- Bright LED display.
- Display : Force & deflection.
- Calibration facility (Optional).
- Force applying through rotating wheel.
- Storage facility for 100 data.





## STANDARD WEIGHTS

To obtain the best accuracy from precision balances, the balances need to be frequently calibrated using precision standard weights. Contech offers Brass & Stainless calibrated weights. Weights are available in cylindrical configuration.

Standard weight box of range 1mg to 200 grams come in attractive, sturdy polished wooden/plastic cases.

Certification Service for the Standard Weights are offered from NABL Accredited Certification Laboratories with traceability to NPL Standards.

- High precision metrological standard weights and weight box.
- Complete range : 1mg to 200 g weight box and loose weights upto 20 kg.
- M1, F2, F1, E2, E1, Class weights.
- Stainless steel, Austenite alloy, Brass material.
- Calibrated by NABL accredited Laboratory, RRSL (Regional Reference Standard Laboratory), NPL (National Physical Laboratory).



| NOMINAL VALUE | MAXIMUM PERMISSIBLE ERRORS FOR WEIGHTS ( $\pm$ in mg) |          |          |          |          |          |
|---------------|---|----------|----------|----------|----------|----------|
|               | Class E1  | Class E2 | Class F1 | Class F2 | Class M1 | Class M2 |
| 5000 kg       |   |          | 25 000   | 80 000   | 250 000  | 800 000  |
| 2000 kg       |   |          | 10 000   | 30 000   | 100 000  | 300 000  |
| 1000 kg       |   | 1 600    | 5 000    | 16 000   | 50 000   | 160 000  |
| 500 kg        |   | 800      | 2 500    | 8 000    | 25 000   | 80 000   |
| 200 kg        |   | 300      | 1 000    | 3 000    | 10 000   | 30 000   |
| 100 kg        |   | 160      | 500      | 1 600    | 5 000    | 16 000   |
| 50 kg         | 25  | 80       | 250      | 800      | 2500     | 8 000    |
| 20 kg         | 10  | 30       | 100      | 300      | 1 000    | 3 000    |
| 10 kg         | 5   | 16       | 50       | 160      | 500      | 1 600    |
| 5 kg          | 2.5   | 8        | 25       | 80       | 250      | 800      |
| 2 kg          | 1   | 3        | 10       | 30       | 100      | 300      |
| 1 kg          | 0.5   | 1.6      | 5        | 16       | 50       | 160      |
| 500 g         | 0.25  | 0.8      | 2.5      | 8        | 25       | 80       |
| 200 g         | 0.1   | 0.3      | 1        | 3        | 10       | 30       |
| 100 g         | 0.05  | 0.16     | 0.5      | 1.6      | 5        | 16       |
| 50 g          | 0.03  | 0.1      | 0.3      | 1        | 3        | 10       |
| 20 g          | 0.025   | 0.08     | 0.25     | 0.8      | 2.5      | 8        |
| 10 g          | 0.02  | 0.06     | 0.2      | 0.6      | 2        | 6        |
| 5 g           | 0.016   | 0.05     | 0.16     | 0.5      | 1.6      | 5        |
| 2 g           | 0.012   | 0.04     | 0.12     | 0.4      | 1.2      | 4        |
| 1 g           | 0.01  | 0.03     | 0.1      | 0.3      | 1        | 3        |
| 500 mg        | 0.008   | 0.025    | 0.08     | 0.25     | 0.8      | 2.5      |
| 200 mg        | 0.006   | 0.02     | 0.06     | 0.2      | 0.6      | 2        |
| 100 mg        | 0.005   | 0.016    | 0.05     | 0.16     | 0.5      | 1.6      |
| 50 mg         | 0.004   | 0.012    | 0.04     | 0.12     | 0.4      |          |
| 20 mg         | 0.003   | 0.01     | 0.03     | 0.1      | 0.3      |          |
| 10 mg         | 0.003   | 0.008    | 0.025    | 0.08     | 0.25     |          |
| 5 mg          | 0.003   | 0.006    | 0.02     | 0.06     | 0.2      |          |
| 2 mg          | 0.003   | 0.006    | 0.02     | 0.06     | 0.2      |          |
| 1 mg          | 0.003   | 0.006    | 0.02     | 0.06     | 0.2      |          |

# ELECTRO CHEMICAL INSTRUMENTS

## MULTIPARAMETER METER CMPM-01

pH, mV, ms,  $\mu$ S, mg/L, ppt, %, ppm, °C

### Specifications :

| Measurement Parameters | Range  | Accuracy      | ATC     | Electrodes |
|------------------------|--|---------------|---------|------------|
| pH                     | 0-14pH   | $\pm 0.02$ pH | 0-100°C | EpHP01     |
| mV                     | +1999mV  | $\pm 1$ mV    | 0-100°C | EpHP01     |
| Conductivity           | 0-200mS/cm spread into 5 ranges<br>0.00-20.00 $\mu$ S/cm,<br>20.0-200.0 $\mu$ S/cm,<br>200-2000 $\mu$ S/cm,<br>2.00-20.00mS/cm,<br>20.0-200.0 mS/cm, | $\pm 1\%$ FS  | 0-50°C  | ECNG01     |
| Resistivity            | 0-100M $\Omega$ cm   |               | 0-50°C  | ECNG01     |
| TDS                    | 0-100ppt (g/L)   |               | 0-50°C  | ECNG01     |
| Salinity               | 0-100ppt   |               | 0-50°C  | ECNG01     |
| DO                     | 0-40.00mg/L(ppm),  | $\pm 1\%$ FS  | 0-45°C  | EDO01      |
| Temp                   | -10.0 ~ 110.0°C  | $\pm 0.4$ °C  |         | ETS01      |

### Features

- pH , mV, Conductivity, Resistivity, TDS, Salinity, DO, Temperature modes.
- Automatic or Manual temperature Compensation.
- 3 point pH calibration.
- Buffers selectable from 1.68pH, 4.00pH, 4.01pH, 6.86pH, 7.00pH, 9.18pH, 9.20pH, 10.01pH and 12.45pH
- Automatic buffer recognition.
- 1 point conductivity calibration for the entire range.
- Dissolved oxygen electrode with the salinity measurement feature to achieve automatic salinity & temperature compensation.
- Automatic air pressure compensation for DO with the help of air pressure sensor.
- Polarographic type DO electrode offers short polarization time, quick response and precise measurements.
- Bi directional RS-232 interface. Baud rate selectable from 1200,2400,4800 and 9600.
- Single and continuous print out of measuring parameters.
- Multiple Printout types. Combinations selectable from Sr. No., pH, mV, conductivity, TDS, Salinity, DO, Date, time and temperature.
- Real Time Clock.
- Calibration report as per GLP requirements.
- Electrode Slope and mV offset display.
- LCD display with Backlite.
- Memory storage of 100 measurements.
- Data logging facility up to 500 results. Data logging interval selectable from 5S, 10S, 20S, 30S, 1M, 2M and 5M.
- Temperature calibration with respect to solution of known temperature.



Customised large white backlight LCD with display of various measuring parameter units



Ports for different electrodes on the rear panel

Magnetic Stirrer : CMS-01 Optional

For proper performance of DO Meter, Magnetic Stirrer is must.

## LAB pH METERS

pH,mv,°C

### CpH-102 & CpH-103

 pH mv } inbuilt temp. sensor for CpH-102

 pH mv } For CpH-103  
Temp. }

#### Specifications :

| Model                    | CpH-102   | CpH-103                                     |
|--------------------------|---|---|
| pH Range                 | 0-14pH  | -2.0000-19.999pH                            |
| pH Resolution            | 0.01pH  | 0.001pH                                     |
| pH Accuracy              | +0.02pH   | +0.002pH                                    |
| Temperature compensation | Automatic or Manual   | Automatic or Manual                         |
| Temperature range        | 0-100 <sup>o</sup> C  | 0-100 <sup>o</sup> C                        |
| mV Range                 | +1999mV   | +1999.9mV                                   |
| mV Resolution            | 1mV   | 0.1mV                                       |
| mV Accuracy              | +1mV  | +0.5mV                                      |
| Electrode                | pH combination electrode with built in temperature sensor<br>- Plastic-EpHP02 | pH combination electrode<br>- Glass -EpHG04 |
| Temperature Electrode    | Built in  | Temperature sensor electrode                |

## CONDUCTIVITY METER

ms,µs,mg/L,ppt,°C

### CC-01

 Temp.  
Cond.  
TDS

#### Specifications :

Measurement Range : Conductivity : 0-200mS/cm spread into 5 ranges 0.00-20.00µS/cm, 20.0-200.0 µS/cm, 200-2000 µS/cm, 2.00-20.00mS/cm, 20.0-200.0 mS/cm,  
Resistivity : 0-100MΩcm  
TDS : 0-100ppt (g/L)  
Salinity : 0-100ppt  
Temperature : -10.0 - 110.0<sup>o</sup>C

Precision : Conductivity : ±1% FS  
Temperature : ±0.4<sup>o</sup>C

ATC : 0-50<sup>o</sup>C

Display : Backlite LCD

Power : 9V/ 500 mA External adaptor or battery backup unit (Optional)

Operating Temperature : 15-45<sup>o</sup>C

Meter Dimensions(mm) : 165 (L) x 190 (D) x 60 (H)

Meter Weight : 700 g

Electrode : Conductivity electrode - ECNG01 (K=1.0)  
Electrode with = 0.1 or 10 Optional.  
Temperature sensor electrode- ETS01

## DISSOLVED OXYGEN METER

mg/L,ppm,%,°C

### CDO-01

 Temp.  
DO

#### Specifications :

Measurement Range : DO : 0-20.00mg/L(ppm), 0-100.0%  
Temperature : 0 - 45<sup>o</sup>C

Precision : DO : ±1% FS  
Temperature : ±0.4<sup>o</sup>C

Temperature correction : Automatic 0-45<sup>o</sup>C

Salinity correction : Automatic 0-45ppt

Air pressure correction : Automatic 80 - 105kPa

Display : Backlite LCD

Power : 9V/ 500 mA External adaptor or battery backup unit (Optional)

Operating Temperature : 15-45<sup>o</sup>C

Meter Dimensions (mm) : 165 (L) x 190 (D) x 60 (H)

Meter Weight : 700 g

Electrode : DO electrode-EDO01

Magnetic Stirrer : CMS-01 Optional

For proper performance of DO Meter, Magnetic Stirrer is must.



## ORP METER

COR-01

pH, Rel.mv, °C

### Specifications :

|                          |  |
|--------------------------|--|
| ORP Range                | : ±2000mV  |
| Temperature range        | : 0-100°C  |
| ORP Resolution           | : 1mV  |
| ORP Accuracy             | : ±1mV   |
| Temperature compensation | : Automatic or Manual  |
| Input Resistance         | : >1x10 <sup>12</sup> Ω  |
| Display                  | : Backlite LCD, Character height                                   |
| Power                    | : 9V/ 500 mA External adaptor or battery backup unit (Optional)    |
| Operating Temperature    | : 15-45°C  |
| Meter Dimensions (mm)    | : 165 (L) x 190 (D) x 60 (H)                                       |
| Meter Weight             | : 700 g  |
| ORP Electrode            | : ORP Combination Electrode EORP-01<br>Temperature Electrode ETS01 |



\* For pH measurements, pH electrode (Optional) should be used. However the instrument has to be recalibrated with pH electrode using pH standard solutions.

## DUAL PARAMETER METERS

### pH/Conductivity Meter-CpHC

pH,mv,ms, μs,mg/L,ppt, °C

pH, Cond. & temp. electrodes

### pH / Dissolved Oxygen Meter-CpHDO

pH,mv,mg/L,ppm,%, °C

pH, DO, temp. electrodes

### Conductivity / Dissolved Oxygen-CCDO

ms,μs,mg/L,ppt,ppm,%, °C

Cond., DO, temp. electrodes

### Common Specifications :

|                 |                               |             |                               |
|-----------------|-------------------------------|-------------|-------------------------------|
| Power           | : 9V/ 500 mA External adaptor | Optional    | : Magnetic Stirrer CMS-01,    |
| Operating Temp. | : 15-45°C                     | Accessories | : Battery backup unit BBEC-01 |
| Meter Dim. (mm) | : 165 (L) x 190 (D) x 60 (H)  |             | : Calibration Standards       |
| Meter Weight    | : 700 g                       |             |                               |

## ELECTRODES

### ELECTROCHEMICAL ELECTRODES

| Electrode   | Model   | Specifications  |
|---|---------|---|
| pH combination - Plastic                          | EpHP01  | Plastic housing, Ceramic Junction, 0-80°C Temp. range, BNC Connector, Size : 12Ø x 160mm  |
| pH combination with built in temperature sensor   | EpHP02  | Plastic housing, Ceramic Junction, 0-80°C Temp. range, BNC(pH) + Ø 3.5mm, 2 cores(temp) Connector, Size : 12 Ø x160mm                           |
| pH combination - Glass                            | EpHG04  | Glass housing 0-90°C Temp.range, glass ground joint Junction, BNC Connector, Size : 12 Ø x160 mm  |
| Conductivity                                      | ECNG-01 | 0.5 μS / cm - 200μS /cm range, 1.0±0.2 cm-1 constant, BNC Connector, Size : 12 Ø x155mm,5x7mm Pt plate sensitive element (coated with Pt black) |
| Temperature Sensor                                | ETS-01  | -10 - 110° C, 5 Ø x 145mm, Customized Connector   |
| Dissolved Oxygen with built in temperature sensor | EDO-01  | Polarographic, Size : 15 Ø X 180mm, polarization time : 3-5 mins mini round shell connector   |
| ORP Combination Plastic                           | EORP-01 | Plastic housing, Ceramic Junction, BNC Connector, Sensitive element : 1mm Øx5mm Pt pin, Size : 12 Ø x160 mm                                     |

### ACCESSORIES for Electro Chemical Instruments

|                    |         |                                |         |
|--------------------|---------|--------------------------------|---------|
| • Magnetic Stirrer | CMS-01  | • Battery Backup               | BBEC-01 |
| • Electrode Holder | EH-01   | • Calibration Solutions        |         |
| • Printer          | CMP-01  | pH : pH 4.0, pH 7.0, pH 9.2    |         |
| • Power Supply     | SMPS-04 | Conductivity : 1413 μs/cm      |         |
| • Stirr Bead       | SB-01   | DO : '0' zero level solution   |         |
|                    |         | ORP : 86mV, 255mV, 475mV       |         |
|                    |         | TDS : 300ppm, 1000ppm, 3000ppm |         |



## SAMPLE PREPARATION EQUIPMENTS

### MAGNETIC STIRRER

CMS-01

**Features :**

- Maximum Stirring Quantity : 3 litre water
- Microprocessor speed controller guarantees speed accuracy.
- Speed setting possible only while the stirring is off.
- LCD with backlite displays for set and actual speed.
- Stirring Speed range : 100-1500rpm with load
- Speed resolution : 1rpm
- Speed Setting Increment : 10rpm
- Stirrer Plate Top : Stainless steel
- Stirrer plate diameter : 135mm



**Specifications :**

- Dimension (mm) : 165 (W) X 230 (L) X 110 (H),
- Weight : 2Kg approx.
- Power supply : 100-250 V AC, 50/60 Hz, 20 Watt

### MAGNETIC STIRRER

CMS-02

**Features :**

- Maximum Stirring Quantity : 10 litre water
- Microprocessor speed controller guarantees speed accuracy.
- Speed setting possible only while the stirring is off.
- LCD with backlite displays for set and actual speed.
- Stirring Speed range : 100-1500rpm with load
- Speed resolution : 1rpm
- Speed Setting Increment : 10rpm
- Stirrer Plate Top : Stainless steel
- Stirrer plate diameter : 135mm



**Specifications :**

- Dimension (mm) : 205 (W) X 335 (L) X 130 (H),
- Weight : 4.5Kg approx.
- Power supply : 100-250 V AC, 50/60 Hz, 20 Watt

### MAGNETIC STIRRER

CMS-03

**Features :**

- Maximum Stirring Quantity : 20 litre water
- Microprocessor speed controller guarantees speed accuracy.
- Speed setting possible only while the stirring is off.
- LCD with backlite displays for set and actual speed.
- Stirring Speed range : 100-1500rpm with load
- Speed resolution : 1rpm
- Speed Setting Increment : 10rpm
- Stirrer Plate Top : Stainless steel
- Stirrer plate dimension : 185 X 185 (mm)



**Specifications :**

- Dimension (mm) : 205 (W) X 335 (L) X 130 (H),
- Weight : 4.5Kg approx.
- Power supply : 100-250 V AC, 50/60 Hz, 20 Watt

## MAGNETIC STIRRER WITH HEATING

### CMS-01H

#### Features :

- ▶ Maximum temperature : 280°C. (Actual liquid temperature is lesser than the work plate temperature)
- ▶ Maximum Stirring Quantity : 3 litre water
- ▶ Backlite LCD with display of measuring parameters.
- ▶ Display shows set & actual temperature & speed.
- ▶ Provision for °C & °F temperature unit.
- ▶ Inbuilt temperature sensor for the temperature setting & display.
- ▶ Optional external temperature sensor for setting & measurement of liquid temperature with external control indication on display.
- ▶ Inbuilt temperature safety cut off.
- ▶ Temperature resolution : 1°C
- ▶ Temp. Setting Increment : 1°C
- ▶ Temperature control accuracy of work plate : ±5°C
- ▶ Temperature control accuracy with external temperature probe : ±0.5°C
- ▶ Maximum Stirring Speed : 1500rpm
- ▶ Speed Resolution : 1rpm
- ▶ Speed Setting Increment : 10rpm
- ▶ Stirrer Plate Top : Stainless steel
- ▶ Base Diameter : 135 mm

#### Specifications :

- ▶ Dimension (mm) : 165 (W) X 230 (L) X 110 (H),
- ▶ Weight : 2Kg approx.
- ▶ Heater Power : 500W
- ▶ Power supply : 220-240 V AC, 50/60 Hz, 520 Watt



## MAGNETIC STIRRER WITH HEATING

### CMS-02H

#### Features :

- ▶ Maximum temperature : 340°C. (Actual liquid temperature is lesser than the work plate temperature)
- ▶ Maximum Stirring Quantity : 5 litre water
- ▶ Backlite LCD with display of measuring parameters.
- ▶ Display shows set & actual temperature & speed.
- ▶ Provision for °C & °F temperature unit.
- ▶ Inbuilt temperature sensor for the temperature setting & display.
- ▶ Optional external temperature sensor for setting & measurement of liquid temperature with external control indication on display.
- ▶ Inbuilt temperature safety cut off.
- ▶ Temperature resolution : 1°C
- ▶ Temp. Setting Increment : 1°C
- ▶ Temperature control accuracy of work plate : ±5°C
- ▶ Temperature control accuracy with external temperature probe : ±1°C
- ▶ Maximum Stirring Speed : 1500rpm
- ▶ Speed Resolution : 1rpm
- ▶ Speed Setting Increment : 10rpm
- ▶ Stirrer Plate Top : Stainless steel
- ▶ Base Diameter : 135 mm

#### Specifications :

- ▶ Dimension (mm) : 205 (W) X 335 (L) X 130 (H),
- ▶ Weight : 4.5Kg approx.
- ▶ Heater Power : 500W
- ▶ Power supply : 220-240 V AC, 50/60 Hz, 520 Watt



## MAGNETIC STIRRER WITH HEATING

### CMS-03H

#### Features :

- ▶ Maximum temperature : 550°C (Actual liquid temperature is lesser than the work plate temperature)
- ▶ Maximum Stirring Quantity : 10 litre water
- ▶ Aluminium diecast enclosure for excellent chemical & thermal resistance.
- ▶ Glass ceramic work plate for high temperature & chemical resistance and easy to clean.
- ▶ Brushless DC motor for long life & maintenance free operation.
- ▶ Backlite LCD with display of measuring parameters.
- ▶ Display shows set & actual temperature & speed.
- ▶ Inbuilt temperature sensor for the temperature setting & display.
- ▶ Optional external temperature sensor for setting & measurement of liquid temperature with external control indication on display.
- ▶ Inbuilt temperature safety cut off.
- ▶ Temperature resolution : 1°C
- ▶ Temp. Setting Increment : 5°C
- ▶ Temperature control accuracy of work plate :  $\pm 10^{\circ}\text{C}$
- ▶ Temperature control accuracy with external temperature probe :  $\pm 5^{\circ}\text{C}$
- ▶ Maximum Stirring Speed : 1500rpm
- ▶ Speed Resolution : 1rpm
- ▶ Speed Setting Increment : 10rpm
- ▶ Work Plate Dimension : 185 x 185 mm

#### Specifications :

- ▶ Dimension (mm) : 205 (W) X 335 (L) X 130 (H).
- ▶ Weight : 4.5Kg approx.
- ▶ Heater Power : 1000W
- ▶ Power supply : 220~240 V AC, 50/60 Hz, 1050 Watt



## MULTI STATION MAGNETIC STIRRER WITH HEATING

### CMS-10H

#### Features :

- ▶ High performance multi station magnetic stirrer with heating.
- ▶ 10 station position with uniform temperature distribution.
- ▶ Microprocessor speed controller guarantees speed accuracy.
- ▶ Backlite LCD display for temperature & speed indication.
- ▶ Brushless DC motor for maintenance free & noiseless operations.
- ▶ Inbuilt temperature safety cutoff.
- ▶ Stainless steel anti corrosion top.
- ▶ Work Plate Dimension : 200 x 470 (mm)
- ▶ Maximum stirring Quantity : 400ml in each position.
- ▶ Maximum Stirring Speed : 1100rpm
- ▶ Temperature range of work plate : Ambient to 120°C  
(Actual liquid temperature is lesser than the work plate temperature)

#### Specifications :

- ▶ Dimension (mm) : 205(W) X 610(L) X 65 (H).
- ▶ Weight : 4Kg approx.
- ▶ Heater Power : 480 W
- ▶ Power supply : 220~240 V AC, 50/60 Hz, 500 Watt



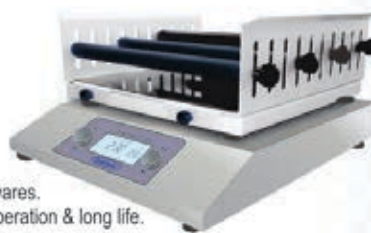


## ORBITAL SHAKER

### CLS-010

#### Features :

- Orbital Shaker.
- Speed & time adjustment.
- Backlite display for viewing speed & time.
- Platform options for different types of glasswares.
- Brushless DC motor for maintenance free operation & long life.
- Overspeed protection.
- Designed for continuous or time based operation.



#### Specifications :

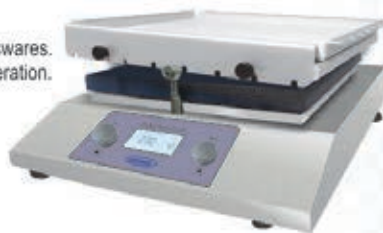
- Orbital Dimension : 10mm
- Maximum load with platform : 7.5 kg
- Speed Range : 100-500 rpm
- Time : 1-1200min.
- Dimension (mm) : 355 (W) x 420 (L) x 215 (H)
- Weight : 15kg
- Power supply : 100-250 V AC, 50/60 Hz, 30 Watt

## ROCKING SHAKER

### CLS-02R

#### Features :

- See-Saw rocking motion.
- Speed & time adjustment.
- Backlite display for viewing speed & time.
- Platform options for different types of glasswares.
- Designed for continuous or time based operation.
- DC motor for reliable operation.



#### Specifications :

- Tilt angle : 9 degree
- Maximum Load Capacity with platform : 10kg
- Speed Range : 10-70rpm
- Time setting range : 1-1200min.
- Dimension (mm) : 355 (W) x 420 (L) x 180 (H)
- Weight : 10kg
- Power supply : 100-250 V AC, 50/60 Hz, 50 Watt

## 3D SHAKER

### CLS-03D

#### Features :

- Gentle three dimensional motion shaker.
- Speed & time adjustment.
- Backlite display for viewing speed & time.
- Platform options for different types of glasswares.
- Designed for continuous or time based operation.
- DC motor for reliable operation.



#### Specifications :

- Tilt angle : 9 degree
- Maximum Load Capacity : 5kg
- Speed Range : 10-70rpm
- Time setting range : 1-1200min.
- Dimension (mm) : 355 (W) x 420 (L) x 190 (H)
- Weight : 10kg
- 28 • Power supply : 100-250 V AC, 50/60 Hz, 50 Watt



## DIGITAL TUBE ROLLER

CTR-01

### Features :

- Provides gentle rocking & rolling motion.
- Rocking & rolling motion for complete mixing.
- Six no. easy cleaning rollers.
- Design for continuous or time based operation.
- DC motor for reliable operation.



### Specifications :

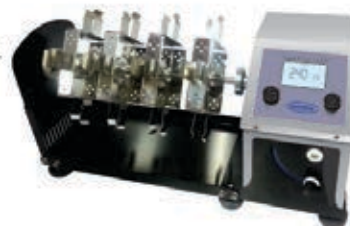
- Amplitude : 24mm
- Maximum Load Capacity : 4kg
- Speed Range : 10-70rpm
- Time setting range : 1-1200min.
- Dimension (mm) : 250 (W) x 460 (L) x 110 (H)
- Weight : 5kg
- Power supply : 100-250 V AC, 50/60 Hz, 30 Watt

## DIGITAL ROTATOR

CLR-01

### Features :

- Rotor is provided with 2 different types of tube holders.
- In 1st option rotor is supplied with rotisserie holder for tubes.
- In 2nd option rotor is supplied with disc holder for tubes & the disc angle can be set from 0-90degree.
- Different options of holding accessories.
- Speed & time adjustment.
- LCD with backlite displays time and speed.
- DC motor for reliable operation.
- Designed for continuous or time based operation.



### Specifications :

- Tilt angle : 90degree
- Speed Range : 10-70rpm
- Timer : 1-1200min.
- Dimension (mm) : 195 (W) x 190 (L) x 260 (H)
- Weight : 8kg
- Power supply : 100-250 V AC, 50/60 Hz, 40 Watt

1st option-with rotisserie tube holder

Dimension (mm) : 205 (W) x 515 (L) x 280 (H)

2nd option-with disc tube holder

Dimension (mm) : 195 (W) x 270 (L) x 360 (H)



## OPTICAL INSTRUMENTS

### DIGITAL POLARIMETERS

#### CDP-001

- ▶ Based on optical null principle.
- ▶ Large Backlite LCD screen.
- ▶ Calculation of average & RMS value.
- ▶ RS-232 Interface.
- ▶ Measurement of dark sample upto 1% transmittance.
- ▶ Various types of sample tubes, sample tube length 100 mm and 200mm.
- ▶ Measures optical rotation, specific rotation, concentration and sugar content.
- ▶ Software for computer interface (optional).



|                                 |   |
|---------------------------------|---|
| Light source                    | : Infrared LED                          |
| Wave length                     | : 589.44nm                              |
| Modulator Measuring Range       | : Faraday magneto optical modular.      |
| Optical Rotation                | : -45° ~ +45°                           |
| International Sugar Scale       | : -120° ~ +120° Z                       |
| Accuracy Optical Rotation       | : ±(0.001° + measuring value x 0.05%)   |
| International Sugar Scale       | : ±(0.03° Z + measuring value x 0.05%Z) |
| Minimum transmittance of sample | : 1%                                    |
| Power Supply                    | : 230V, ±10% AC, 50/60 Hz               |
| Dimensions                      | : 600mmx320mmx240mm                     |
| Weight                          | : 30kg                                  |

### DIGITAL ABBE REFRACTOMETERS

#### CAR-02

- ▶ Measurement of refractive index of transparent, translucent liquids and solid substances.
- ▶ Measurement of percentage of solids in sugar solution (brix).
- ▶ Automatic temperature correction of brix.
- ▶ RS-232 Interface.
- ▶ Backlite LCD.
- ▶ Prism made of hard glass.
- ▶ Software for computer interface (optional).



|   |   |
|---|---|
| Measuring Range                                   | : Refractive Index nD : 1.3000 to 1.7000<br>Brix : 0 to 95%<br>Brix-TC : 0 to 95% |
| Accuracy  | : Refractive Index nD : +/-0.0002<br>Brix : +/-0.1%                               |
| Range of temperature display                      | : 0 to 50°  |
| Range of temperature for correction of Brix value | : 15 to 45°   |
| Power Supply                                      | : 220 V +/-10%, 50Hz  |
| Dimension   | : 330x180x380mm   |
| Weight  | : 10 kg   |

### DIGITAL MELTING POINT APPARATUS

#### CDMP-300

- ▶ Photo Electric detection.
- ▶ Large Backlite LCD display.
- ▶ RS-232 Interface.
- ▶ Measurement of 3 samples simultaneously.(Optional)
- ▶ Display of initial and final melting points.
- ▶ Calculation of average value of initial and final melting points.
- ▶ Platinum resistor sensor for the precise temperature measurement.
- ▶ Capillary sample tube as stipulated by pharmacopoeia.
- ▶ Software for computer interface (optional).



|                                  |   |
|----------------------------------|---|
| Measuring Range of Melting point | : Ambient to 300°C                                  |
| Resolution                       | : 0.1°C   |
| Rate of heating(°C/min)          | : 0.2,0.5, 1, 1.5, 2, 3, 4, 5                       |
| Accuracy                         | : ±0.5°C upto 200°C,<br>±0.8°C from 200°C to 300°C. |
| Heating time (50 to 300°C)       | : 3 mins  |
| Cooling time( 300 to 50°C)       | : 5 mins  |
| Capillary sample tube size       | : OD 1.4mm, ID 1mm                                  |
| Power Supply                     | : 220 V +/-10%, 50Hz, 100 Watt                      |
| Dimensions                       | : 400 x 280 x 210 mm                                |
| Weight                           | : 12.5 kg   |

## X-RAY FLUORESCENCE SPECTROMETERS

XRF is used to detect and analyze noble metals like Gold (Au), Silver (Ag), Platinum (Pt), Palladium (Pd), Rhodium (Rh), Ruthenium (Ru), Iron (Fe), Cobalt (Co), Copper (Cu), Zinc (Zn), Nickel (Ni), Cadmium (Cd), Indium (In), Tin (Sn), Osmium (Os), Iridium (Ir) in the Jewellery Industry.

Energy Dispersive X-ray Fluorescence (EDXRF) technique relies on the detector and the detection circuit capability to resolve spectral peaks due to different energy X-Rays emitted when a primary X-Ray beam strikes a metal alloy corresponding to different elements in the sample, intensity of the spectrum radiation proportional to the concentration of element. The spectrum is then processed through the powerful computer software which calculates and reports the various elements & their composition in the sample.

XRF Gold Purity Tester consists of X-Ray tube, high voltage power supply for X-Ray source, X-Ray tube filters, X-Ray fluorescence Detector, processing electronics and system interface & an external computer. A camera is incorporated in the system to view the sample on the computer screen.

XRF is a reference technique, hence standards are required for quantitative results. Standards are analyzed, spectral intensities generated are used to obtain a intensity v/s concentration plot for calibration. This calibration is used to evaluate the spectral intensities of unknown samples.

### GAS PROPORTIONAL XRF DETECTOR CGX-101



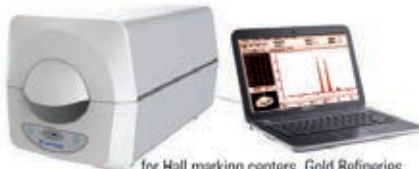
for Jewellery showrooms, Jewellery processing Industries, Financial Institutes, Banks, etc.

#### Specifications :

|                              |  |
|------------------------------|--|
| Detectable elements          | : Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Ruthenium (Ru), Rhodium (Rh), Palladium (Pd), Silver (Ag), Cadmium (Cd), Indium (In), Tin (Sn), Osmium (Os), Iridium (Ir), Platinum (Pt), Gold (Au) |
| Measurement Results          | : Cu (Combined with Fe, Co, Ni, Zn)<br>Ag (Combined with Ru, Rh, Pd, Cd, In, Sn)<br>Au (Combined with Os, Ir, Pt)  |
| Accuracy of measurement      | : +0.3% (Molten Metal above 90% Au)<br>+0.5% (Molten Metal below 90% Au)<br>+1% (Molten Metal below 50% Au)  |
| Sensor                       | : Gas Proportional Counter   |
| Cooling for Detector         | : Air  |
| Detection Range              | : 1%----99.99%   |
| Testing Time                 | : 30----200 secs   |
| Test Spot Area               | : 0.3mm  |
| Power Supply                 | : 200-240V AC, 50/60Hz   |
| Power Rating                 | : 130 Watt   |
| Working Temperature          | : 15-25°C  |
| Relative humidity            | : <70%   |
| Operation atmosphere         | : Vibration free surface and air conditioned room  |
| Interface for Computer       | : Inbuilt (External Monitor, Keyboard required)  |
| Software for Operation       | : Menu Driven User Friendly Operating System   |
| Dimensions of Instrument     | : Length: 450mm<br>Width : 350mm<br>Height : 345mm (with test compartment cover in closed position) & 565mm (in open position).  |
| Dimensions of Sample Chamber | : Length: 300mm<br>Width : 255mm<br>Height: 80mm   |
| Net Weight                   | : 30kg   |



## SILICON - PIN XRF DETECTOR CGX-102



for Hall marking centers, Gold Refineries,  
Manufacturing Units, Research & Testing labs, etc.

### Specifications :

|                              |  |
|------------------------------|--|
| Detectable elements          | : Titanium to Uranium  |
| Measurement Results          | : Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Ruthenium (Ru), Rhodium (Rh), Palladium (Pd), Silver (Ag), Cadmium (Cd), Indium (In), Tin (Sn), Osmium (Os), Iridium (Ir), Platinum (Pt), Gold (Au) -all metals separately. |
| Accuracy of measurement      | : +0.15% (Molten Metal above 90% Au)<br>±0.3% (Molten Metal below 90% Au)<br>+0.5% (Molten Metal below 50% Au)   |
| Sensor                       | : Silicon-Pin Diode (Silicon Drift Semiconductor or CGX-103)   |
| Cooling for Detector         | : Thermoelectric   |
| Detection Range              | : 0.1%—99.99%  |
| Testing Time                 | : 30—200 secs  |
| Test Spot Area               | : 0.5mm  |
| Power Supply                 | : 90-240 V AC, 50/60HZ   |
| Power Rating                 | : 30 Watt  |
| Working Temperature          | : 15-25°C  |
| Relative humidity            | : <70%   |
| Operation atmosphere         | : Vibration free surface and air conditioned room  |
| Interface for Computer       | : Inbuilt (External Computer required)   |
| Software for Operation       | : Menu Driven User Friendly Operating System   |
| Dimensions of Instrument     | : Length : 335mm<br>Width : 225mm<br>Height : 210mm (with test compartment cover in closed position) & 330mm (in open position).   |
| Dimensions of Sample Chamber | : Length : 235mm<br>Width : 195mm<br>Height : 80mm   |
| Net Weight                   | : 12kg   |

## SILICON DRIFT DETECTORS CGX-103

SDD in place of Si-Pin Detector for enhanced performance & Detection (Spectral Resolution)

### Specifications :

|                              |  |
|------------------------------|--|
| Detectable elements          | : Titanium to Uranium  |
| Measurement Results          | : Iron (Fe), Cobalt (Co), Nickel (Ni), Copper (Cu), Zinc (Zn), Ruthenium (Ru), Rhodium (Rh), Palladium (Pd), Silver (Ag), Cadmium (Cd), Indium (In), Tin (Sn), Osmium (Os), Iridium (Ir), Platinum (Pt), Gold (Au) -all metals separately. |
| Accuracy of measurement      | : The accuracy of measurement is better than Silicon-Pin Detector  |
| Sensor                       | : Silicon Drift Detector is used in place of Silicon-Pin Diode. Detector for enhanced performance & spectral resolutions.  |
| Cooling for Detector         | : Thermoelectric   |
| Detection Range              | : 0.1%—99.99%  |
| Testing Time                 | : 30—200 secs  |
| Test Spot Area               | : 0.5mm  |
| Power Supply                 | : 90-240 V AC, 50/60HZ   |
| Power Rating                 | : 30 Watt  |
| Working Temperature          | : 15-25°C  |
| Relative humidity            | : <70%   |
| Operation atmosphere         | : Vibration free surface and air conditioned room  |
| Interface for Computer       | : Inbuilt (External Computer required)   |
| Software for Operation       | : Menu Driven User Friendly Operating System   |
| Dimensions of Instrument     | : Length : 335mm<br>Width : 225mm<br>Height : 210mm (with test compartment cover in closed position) & 330mm (in open position).   |
| Dimensions of Sample Chamber | : Length : 235mm<br>Width : 195mm<br>Height : 80mm   |
| Net Weight                   | : 12kg   |



All specifications are same except the sensor which is Silicon Drift Detector



## HANDHELD DETECTORS (SI-PIN / SDD) CGX-104

For Portable Applications

Handheld X-ray analyzer works on a rechargeable 7.2V Li-ion battery with a backup period of 8 hours under normal use. XRF analyzer has a detectable range from Ti to U. CGX-104 operates under control of the HP iPAQ PDA with 4 inch high resolution touch-screen display. The optional lab stand allows using of handheld analyzer as a tabletop instrument under PC or laptop control.



### Specifications :

|                             |  |
|-----------------------------|--|
| X-ray tube                  | : Tungsten anode, 40 kV , 100 $\mu$ A with 5 filter positions            |
| Detector type               | : solid state Si-pin-diode with thermo-electrical cooling (optional SDD) |
| Active area                 | : 6 mm <sup>2</sup>  |
| Energy resolution           | : <165 eV at 5.9 keV (<140 eV for SDD)                                   |
| Display                     | : High resolution 4 inch color touch-screen                              |
| Supported operating systems | : Windows CE/Mobile for PDA<br>Windows XP/Vista/7 for PC                 |

**Battery Operation Time** : Up to 8 hours

**Dimensions** : 242 mm (L) x 78 mm (W) x 230 mm (H)

**Weight (with battery)** : 1230 g (1440 g)

### How to get best results from XRF Spectrometer :

- XRF is a reference method, proper standardization of the equipment is required for accurate results.
- In order to get most appropriate results, testing at different points is necessary especially when the jewellery design is intricate.
- Adequate warm up period, sturdy working surface, stable power supply, proper grounding and conditioned atmosphere is required to achieve the best product performance.
- For powder sample, proper grinding of sample minimizes scattering effect.
- For solid sample, surface polishing minimizes the scattering effect.
- Flat surface of the sample yields the best results.
- Due to different melting points, atomic structure and crafting techniques, not all the elements can be melted with noble metals.

## GOLD PURITY CHECKING BALANCE

|                         |           |           |
|-------------------------|-----------|-----------|
| <b>Model</b>            | CTL-323   | CTL-603   |
| <b>Capacity</b>         | 320 g     | 600 g     |
| <b>Accuracy</b>         | 0.001 g   | 0.001 g   |
| <b>Density Accuracy</b> | 0.01 g/cc | 0.01 g/cc |



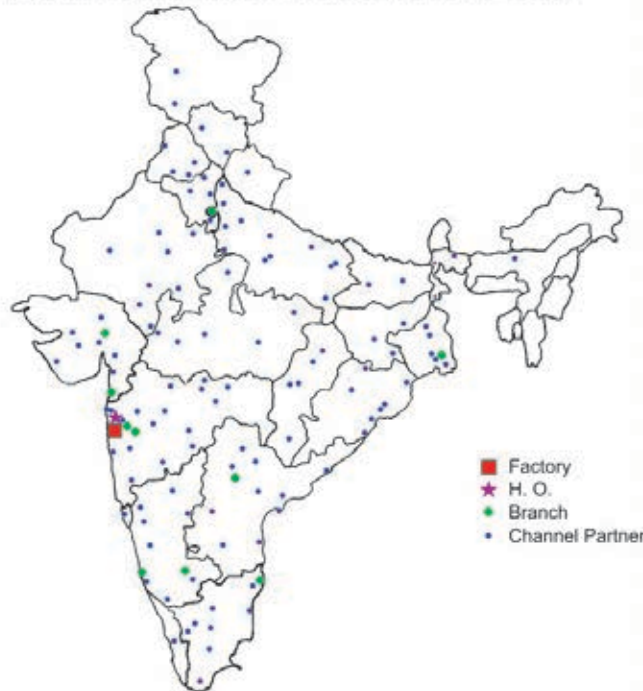
### Features

- ▶ Measurement based on Archimedes' principle incorporating High Precision electronic weighing scale.
- ▶ Accurate, Reliable and non destructive testing method.
- ▶ Provision to enter water temperature for temperature compensation of density value.
- ▶ Display of gold purity in % as well as karat.
- ▶ Gold purity checking in gold-copper-silver, gold-silver, gold-copper alloys.
- ▶ Can be used to check other precious metals like platinum, palladium etc. by using mixture proportion function.
- ▶ RS-232 interface for printer / computer connection.
- ▶ Spacious tank for big ornaments, special design of tank to reduce buoyancy error.
- ▶ Hollow ornaments, ornaments inlaid with stones cannot be checked.

## Marketing and Service Network



**CONTECH** has got its marketing offices and service centers in most of the major cities in India to cover the entire spectrum of Industrial and Retail Segments and to support more than 350 dealers in 100 plus cities and more than 4 lakh installations spread across the country. Customized and dedicated Enterprise Resource Planning (ERP) software package for the entire operation of Contech with exclusive CRM Module for customer support helps in tracking the product and customer history and coupled with efficient customer support team has enabled Contech to offer services to be one of the best in the field.



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\*Accessories shown with the product images may not be supplied as standard.  
\*Specifications and designs of products are subject to change for improvement.