

# EMIN

Testing & Measuring Everything

## Testing & Measuring Instruments

Electric-Electronic-Mechanical-Automation Equipment



2019

**EMIN** is the leading company in direct importing and distributing Testing equipments, Automation equipments, Laboratory equipments, Handheld tools..... with variety of models, offering with best price, with flexible payment policy and outstanding post-sale services. We believe you will be served and advised with all the best.

## Mission

Our mission is to work closely with manufacturers, leading suppliers in local and international market to provide high-quality equipment with the best price policy for customers as individuals, domestic and foreign organizations.

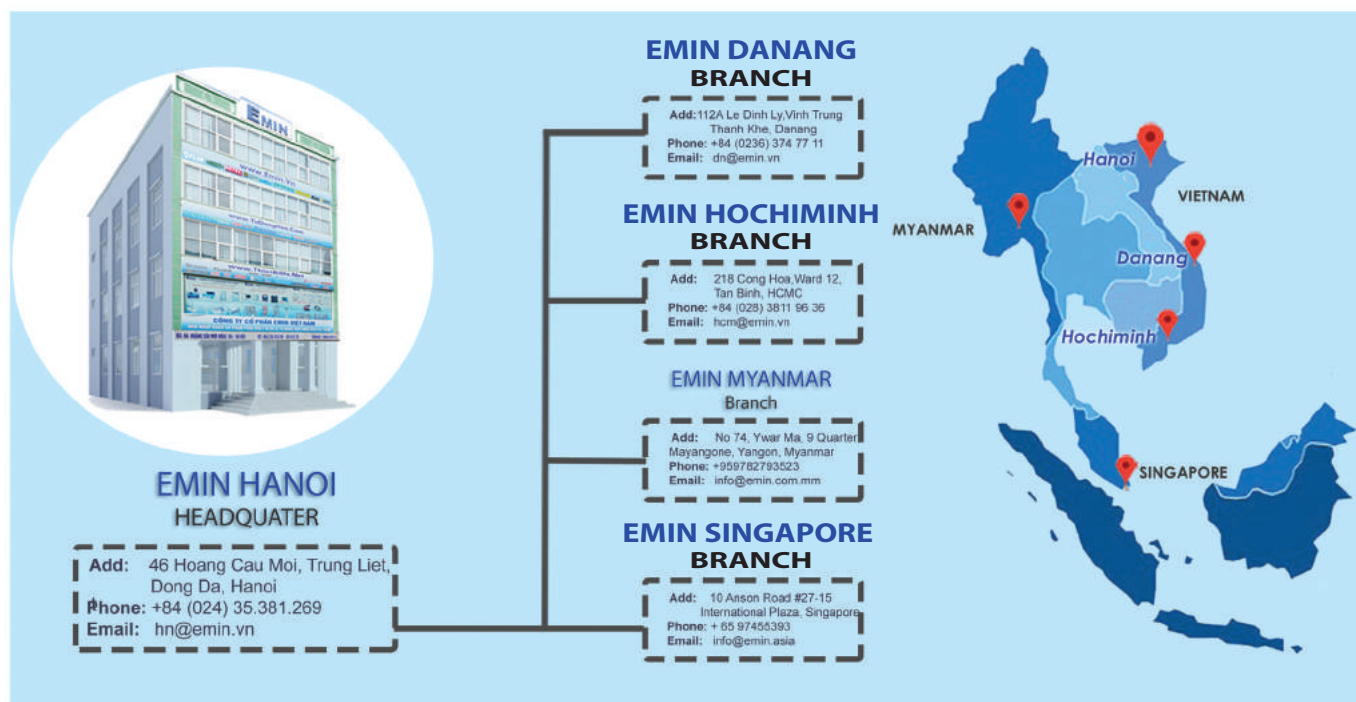
We committed to be a reliable partner not only for enterprises with 100% foreign investment, multinational companies, local businesses, Corporations, projects with international funding, joint-stock companies, limited liability companies, etc ... but also with businesses in the private sector, mainly small and medium enterprises.

## Vision

Emin will become a leading distributor of industrial equipment, instrumentation, automation, hand tools, ... in order to meet most of the needs of the enterprises in Vietnam's economy.

The following business policy were gone through by employees of JSC EMIN Vietnam, and imbued with absolute compliance:

- Not selling low quality, counterfeit and pirated goods, goods of unknown origin ...
- Always provide our customers the best products with the most competitive price, comes with perfect service.
- Always priotize prestige, treating customers with respect and honesty ...
- Always put ourselves in customers situation to make decisions and behave with best manners ...
- Always satisfy every customer of EMIN.



## SUPPLIERS LIST



## CUSTOMERS LIST





- Provide a comprehensive electrical measurement in civil and industrial.
- Power Laboratory Equipment
- Analyzing electronic signals Equipment
- Telecommunications test equipment
- Fitting equipment, electronics repair

## 1.1.Electrical and Electronic Meters

### Clamp meter



CHAUVIN ARNOUX  
METRIX  
FLIR  
SANWA  
GW INSTEK  
PROTEK  
EXTECH  
HIOKI  
KYORITSU  
TENMARS  
SEW  
SONEL  
BKPRECISION  
TESTO  
LUTRON  
PROKITS  
KEYSIGHT

#### Model: CL601

- Range: 0 to 600 AAC RMS
- Resolution: 0.1 A
- Sampling rate: 64 samples/period
- Storage interval: programmable from 125 ms to 1 day
- Recording modes: Start/End, FIFO, XRM extended mode, on alarm
- Recording duration: from 15 minutes to 8 weeks, programmable with DATAVIEW
- Storage capacity: 240,000 measurements (512 kB)
- Communication: optically-isolated USB 2.0
- Power supply/battery life: 2 x AA 1.5V batteries / from 100 hours to more than 45 days

### Multimeter



SANWA  
CHAUVIN ARNOUX  
METRIX  
FLIR  
TEKTRONIX  
KEITHLEY  
GW INSTEK  
HIOKI  
KYORITSU  
SEW  
EXTECH  
SONEL  
PROTEK  
TENMARS  
EZ DIGITAL  
TESTO  
OWON  
LUTRON  
UNI  
BK PRECISION PROKITS  
TTI  
GLOBAL  
KEYSIGHT

#### Model :YX360TRF

- Indicator needle
- DCV: 0.1/0.25/2.5/10/50/250/1000V + -5%
- ACV: 10/50/250/750V + - 4%
- $\Omega$ : 2k/20k/200k/2M/200M $\Omega$  + -5%
- DCA: 50u/2.5m/25m/0.25A
- C: 10uF
- Source: R6 (IEC) or UM-3 (1.5V) x2

### Cable Tester/Meter



SEW  
CHAUVIN ARNOUX  
EXTECH  
SONEL  
MEGGER

#### Model : 5500CB

- + Output signal frequency: 125kHz
- + Voltage measurement range: 12~300V AC/DC
- + Accuracy:  $\pm(2\%rdg+2dgt)$
- + Display: LCD shows function and bargraph
- + Fuse: 690V/0.5A (6.3 x 32mm)

## Leakage Current Tester



KYORITSU  
CHAUVIN ARNOUX  
GW INSTEK  
SANWA  
SONEL  
HIOKI  
SEW  
SMARTSENSOR  
TENMARS  
AINUO

### Model: 2412

Measurements:

Current AC: 20 mA, 200mA,  
2A, 20A, 200A, 500A  
Voltage AC: 0 ~ 600V  
Resistance: 200Ω  
Frequency: 40 ~ 400Hz  
Ring pliers: Ø40mm

## Power Quality Analyzer



ROHDE&SCHWARZ  
CHAUVIN ARNOUX  
METRIX  
TEKTRONIX  
FLIR  
GW INSTEK  
SONEL  
KYORITSU  
HIOKI  
SEW  
EXTECH  
TENMARS BK  
PRECISION AINUO  
IET LAB

### Model: C.A 8333

- Number of channels: 3U / 4I
- Number of inputs: 4V / 3I
- IEC 61000-4-30: EN50160 reports
- Voltage (TRMS AC+DC): 2 V to 1,000 V
- + Voltage ratio: Up to 500 kV
- Current (TRMS AC+DC):
- + MN clamps: MN93 : 500 mA to 200 AAC ;
- MN93A : 0,005 AAC to 100 AAC
- + C193 clamp: 1 A to 1000 AAC
- + AmpFlex® or MA clamps: 100 mA to 10000 AAC

## Low Voltage Tester



SEW  
CHAUVIN ARNOUX  
SANWA  
FLIR  
EXTECH  
KYORITSU  
HIOKI  
SONEL  
TESTO  
STANLEY

### Model: LVD15

Voltage detection: 50V~1000V AC  
Frequency: 50~500 Hz  
Dimensions: 142(L) × 28(W) × 27(D)mm  
Weight (battery included): Approx. 45g  
Power source: 1.5V (AAA) × 2

## Phase Indicator, Detector



KYORITSU  
CHAUVIN ARNOUX  
SANWA  
HIOKI  
SEW  
EXTECH  
SONEL  
BK PRECISION  
PCE

### Model: 8030

- + Directive
- + Voltage AC 200 ~ 480V
- + Frequency effects: 20 ~ 400Hz, 200V ~ 480V

## Tachometer



EXTECH  
CHAUVIN ARNOUX  
SANWA  
HIOKI  
SMARTSENSOR  
TENMARS  
ADTEK  
ADASH  
TESTO  
LUTRON  
IMR  
KIMO

### Model: 461895

Range (RPM)  
Contact 5 to 99,999  
Non-contact 0.5 to 20,000  
Accuracy 0.05% rdg +1 digit  
Surface Speed  
0.2 to 6560ft/min  
0.05 to 1999.9m/min  
Resolution 0.1rpm (< 1,000 rpm)

## Earth Resistance & Resistivity Tester



KYORITSU  
CHAUVIN ARNOUX  
GW INSTEK  
SANWA  
EXTECH  
SONEL  
SEW  
HIOKI  
BK PRECISION  
SMARTSENSOR  
AINUO

### Model: 4105A

+ Resistance: 0~20Ω / 0~200Ω / 0~2000Ω  
+ Ground Voltage (50.60 Hz): 0~200VAC  
Accuracy  
+ Resistance: ± 2% rdg ± 0.1Ω (20Ωrange)  
± 2% rdg ± 3dgt (200Ω/2000Ωrange)  
+ Ground voltage ± 1% rdg ± :: 4dgt  
Source: R6P (AA) (1.5V) × 6  
Size: 105 (L) × 158 (W) × 70 (D) mm

## Multifunction Electrical Installations Meter



KYORITSU  
CHAUVIN ARNOUX  
SEW  
SONEL

### Model: 6016

+ Directive  
+ Measuring communication circuit, measuring circuit, measuring soil resistivity ...  
+ Measuring range: 20/200/2000MΩ / : 20/200MΩ ; 250/500/1000V DC

## Magnetic Field Meter



AARONIA  
METRIX  
WAVECONTROL  
HIOKI  
EXTECH  
TENMARS  
LUTRON  
NOVOTEST  
EMCTD

### Model: NF-5030

Frequency range: 1Hz to 1MHz (20/30MHz with Option 008/010)  
Magnetic field (Tesla): 1pT to 500μT (typ. at 50Hz) expandable up to an amount of Tesla with PBS1  
Magnetic field (Gauss): 10nG to 5G (typ. at 50Hz)  
Electric field: 0.1V/m to 5kV/m (typ. at 50Hz)

## Static Meter



TREK  
MONROE-ELECTRONICS  
SIMCO  
KASUGA

### Model: 523-1-CE

Measurement Range  
0 to ±20 kV DC.  
Range: 0 to ±19,99 K V.  
Resolution: 10 V.  
Dimensions : 31mmHx59mmWx183mmD

## Static Meter



TREK  
MONROE-ELECTRONICS  
SIMCO  
KASUGA

### Model: 152-1-CE

Measurement Range: 103 to 1013  $\Omega$   
Measurement Accuracy (of reading) at 25°  
±10° C and 20% to 70% RH:  
Point to Point Probe (152BP-5P):  
103 $\Omega$  to 1012 $\Omega$  range, ±5%,  
1013 $\Omega$  range, ±8%

## Electrostatic Discharge/Charger Monitors



KASUGA  
TREK  
MONROE  
ELECTRONICS

### Model: NK-7001

Detection method: Vibration-type static sensor  
-Attenuation property  
+ Time taken for reduction from 1,000V to 100V  
+ Time taken for reduction from 200V to 20V  
Display range: ±0.1 - ±1999.9V ; 0.01 - 99.99sec

## Electrostatic Chuck Supply



TREK  
KASUGA

### Model: PM12003

Output Voltage Range: 0 to +1kV peak AC,  
adjustable.  
Max Source Current: Rise Time: Less than 5A  
peak AC, 5mA DC  
Rise Time (10 to 90%, 10pF load): Less than 10ns  
Fall Time (10 to 90%, 10pF load): Less than 100 $\mu$ s

## Static Eliminator (Ionizer)



TREK  
KASUGA

### Model: 950

Output Voltage: 3.0 kV AC  
Air Purge - operating pressure: 0.05 to 0.6MPa  
Gauge Pressure (when connecting Nozzle  
ionizer and optional nozzle)

## Cable Fault Location



TAKACHIHO  
SONEL  
KEP  
DET

### Model: MPL-FF

Output frequencies: 512Hz/9.5kHz/38kHz/80kHz  
Output power: 1W~5W  
Transmitting modes: Direct connection, induc-  
tive, External coil  
Battery Type: LR20 x 8, Direct: 50h  
Visual indication: LCD with Backlight

## High Voltage Amplifier



PINTEK

### Model: HA-205

2500V/uS Super High Speed Model  
170Vp-p ( $\pm 85V$  DC)  
900mA p-p ( $\pm 450mA$  DC)  
Bandwidth: 3MHz / 100Vp-p  
Gain (AMPL): 0~35 (10 Turn VR+SW)  
Microprocess Control Protection

## Insulation Tester



KYORITSU  
CHAUVIN ARNOUX  
METRIX  
FLIR  
SANWA  
SEW  
SONEL  
LUTRON  
HIOKI  
EXTECH  
MEGGER  
SMARTSENSOR  
TENMARS  
BK PRECISION  
KEP  
AINUO  
DET  
TSURUGA  
IET LAB

### Model: 3128

1) Measurement of insulation resistance  
Test voltage:  
500V/1000V/2500V/5000V/10000V/12000V  
Resolution resistance measurement: 500G $\Omega$ /1T  
 $\Omega$ /2.5T $\Omega$ /35T $\Omega$   
Accuracy:  $\pm 5\%$  rdg |  $\pm$  and  $\pm 20\%$  rdg 3dgt  
depending on resolution  
Short circuit current: 5mA  
2) the output voltage  
Power voltage:  
500V/1000V/2500V/5000V/10000V/12000V  
Accuracy: 0 ~ +20%  
Solutions chosen:  
50 ~ 600V (step 5V),  
610 ~ 1200V (10V step),

## High Voltage Testers



SEW  
PINTEK

### Model: 275HP

8 voltage settings: 240Vac, 2kV, 6kV, 11kV, 22kV, 33kV, 132kV, and 275kV.  
High bright LED visual indication.  
Sound indication.  
Easy-to-prove method.  
Self-test selection.  
Use 3 x 1.5V "C" batteries.  
High impact nylon casing.  
Non-contact work by proximity.

## Thermal Imaging Camera



FLIR  
CHAUVIN ARNOUX  
SONEL  
SEEK  
WUHAN  
TESTO

### Model : TG130

- Field of view (FOV): 55° x 43°
- Minimum focus distance): 0.1 m (4 in.)
- Image frequency: 9Hz
- Focus: Focus free
- Detector type: Focal plane array (FPA), uncooled microbolometer
- Spectral range: 7.5 - 14  $\mu m$

## Cable Height Meter



HAGLOF  
SMARTSENSOR  
MEGGER

### Model: L5

Temperature: -20° to +45° C/ -4°F-113°F.  
Height: 0-999 m/ft. Resolution height: 0.1 m/ft.  
Angle: -55° - 85°. Unit: Degrees 360°, Grads 400° and %. Resolution: 0.1°. Accuracy: 0.1°.  
Laser: Distance: 46cm/1.5ft - 700m/2000ft

## InfraRed Thermometer



EXTECH  
KYORITSU  
TESTO  
M&M PRO  
LUTRON  
HIOKI  
CHAUVIN ARNOUX  
KIMO  
ELCOMETER  
EBRO  
SONEL  
HUATEC  
FLIR  
SMARTSENSOR  
BK PRECISION  
PROKITS  
LASERLINER  
BOSCH

### Model: VIR50

Laser Convergence Distance: 50" (127cm)  
IR Temperature Range: -58 to 3992°F (-50 to 2200°C)  
Repeatability: ±0.5% or 1.8°F/1°C  
Basic Accuracy: ±(1% of rdg + 4°F/2°C) (31 to 212°F)  
Max resolution: 0.1°F/°C  
Emissivity: 0.10 to 1.00 Adjustable  
Field of View (Distance to Target): 50:1  
Type K Temperature Range: -58 to 2498°F (-50 to 1370°C)  
Air Temperature Range: 32 to 122°F (0 to 50°C)R

## Battery Tester



EXTECH  
CHAUVIN ARNOUX  
SEW  
BK PRECISION  
HIOKI  
SBS  
TENMARS  
ITECH  
HOPETECH

### Model: BT100

Built-in datalogger stores up to 999 tests  
Simultaneously measures DC Voltage and AC Milliohms  
Auto power off  
Includes Windows® 95/98/NT/2000/ME/XP compatible software for downloading readings to a PC

## Electrical Safety



SEW  
REGELTEX  
CHINA  
VIỆT NAM

### Model: HS-175-8

Extended length (m): 10.62  
Retracted length (m): 1.73  
Stick width (mm): 57.5

## Safety Testers



GW INSTEK  
HIOKI  
LEAPTRONIX  
AINUO  
TSURUGA  
HOPETECH

### Model: GPT-9603

5 kV AC, 20 mA, 100 VA AC  
6 kV DC, 6 mA  
Insulation Resistance  
240 x 48 Ice Blue Dot Matrix LCD  
Auto W-I and I-W Mode

## 1.2.Electrical Tester

### Relay Protection Test Device



HV HIPOT  
DET

#### Model : HT-802

AC current source

- Phase current output ( RMS ): 0~40A/phase; accuracy: 0.5%
- 3-phase in parallel output (RMS): 0~120A

### Current Generators



FRANCELOG  
KEP  
DET

#### Model : MS15000B

- Electrotechnic current generator 15000VA
- + Continuously adjustable using auto-transformer.
- + Current: 0 to 3000A /5 s/ 5V / cables 20m - 1 x 185mm<sup>2</sup>

### Circuit Breaker Tester



SKB  
HV HIPOT

#### Model : PKV-U3.0

Finish all testing subject by itself, no need to connect auxiliary equipment.  
Built-in printer, to print results easily.  
Large screen LCD, graphically display.

### Transformer Test Equipment



SKB  
CHAUVIN ARNOUX  
HV HIPOT  
DET  
RAYTECH

#### Model : PKR-2

Instrument and accompanying documents: inbuilt OLTC in-place diagnostics mode (DRM-test), calibration certificate, operation manual, record book, measurement procedure, software (SW) for PC.

### Insulation Testing



DET  
KEP

#### Model : SVS-15D

Output test AC voltage ranges: 0.1; 3; 15 (kV)  
High voltage sources count: 1  
Leakage current measuring range: 0,3-7,6; 0,3-10 (mA)  
Total weight (control unit, testing bath, HV unit): 51kG

## Withstand Voltage Test



WUHAN

### Model: YDQ-300/300

- Impedance voltage:  $\leq 8\%$
- No-load current:  $< 7\%$
- Product type: AC, AC&DC, AC cascade, AC DC cascade.
- Capacity(kVA): 300
- HV (kV): 300

## Oil Test Equipment



KEP  
DET

### Model: OLT-100A

- Compact and lightweight
- Fully automatic operation
- Fully compatible with IEC 60156
- Preloaded testing programs for different standards
- Built-in printer

## Arrester Testing Device



WUHAN

### Model: HTFC-2GB

- Voltage (U 1mA):  
Range: (0~1999)V; Maximum error:  $\leq \pm 1\% \pm 1d$ ;  
Test Conditions:  $1mA \pm 5\mu A$
- Leakage current (I 0.75U 1mA):  
Range: (0.1~199.9)  $\mu A$ ; Maximum error:  $\pm (2\mu A + 1d)$ ; Test Conditions:  $0.75 U 1mA$ ,  $\leq \pm 2\% \pm 1d$

## Capacitance & Tan $\delta$ Meter



KEP  
RAYTECH

### Model: HTRG-H

- Capacitance measurement range:  $0.1\mu F \sim 3300\mu F$
- Accuracy:  $\pm (\text{reading} \times 1\% + 0.005\mu F)$
- Resolution:  $0.001\mu F$
- Inductance measurement range:  $100\mu H \sim 50H$
- Accuracy:  $\pm \text{reading} \times 2\%$

## High Voltage Testing



DET  
KEP  
SONEL

### Model: AID-70/50

- Output voltage type: DC, AC
- Max output voltage (kV): 70VDC, 50VAC
- Max output current (mA): 14(DC), 45(AC)
- Output voltage measuring range (kV): 0.5-70 (VDC), 0.5-50 (VAC)

## High-Voltage Measuring



DET

### Model: RD-250

- RD-250 provides a measurement of:
- RMS value of the AC voltage of 50 Hz.
- DC average value.
- RD-250 can be used to test high-voltage laboratories of electrical and energy profile, as well as scientific research, institutions.

## High-Voltage Step-Up Transformers

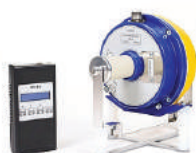


KEP

### Model: TIOG-100 (17kVA)

Transformers test single-phase gas-filled TIOG-55 and TIOG-100 are intended for testing of the high-voltage electrotechnical equipment of class of voltage of 10 kV and 35 kV (above) to short-term variables (50 Hz) up to 55 kV and 100

## Tan Delta Meter



DET

### Model: IPI-10

IPI-10 is designed to measure the dielectric loss tangent  $\tan\delta$  and the capacity of high voltage insulation C when maintaining, repairing, setting-up, testing various power facilities both

## Phase Meter



FRANCELOG

### Model: FPM03

Measure:

- Frequency of the 3 voltages
- +Display of the 3 frequencies (FU1, FU2 and FU3).

## SF6 Gas Analyzer



SMARTSENSOR

### Model: HTZH-2H

- Measuring range: 0%~100%
- Accuracy:  $\pm 0.5\%$
- Measuring time: < 2min
- Dew point
- Measuring range:  $-80^{\circ}\text{C} \sim +20^{\circ}\text{C}$
- Accuracy:  $\pm 0.5^{\circ}\text{C}$  ( $-80^{\circ}\text{C} \sim -60^{\circ}\text{C}$ )

## 1.3. Calibrators

### Process Calibrator



POWERTEK  
CHAUVIN ARNOUX  
PRESYS  
HIOKI  
SEW  
EXTECH  
FLUKE  
HUAXIN  
IET LAB  
KDS  
KEYSIGHT

### Model: MC142

Voltage range: 1mV to 200V  
Current range: 100uA to 2A  
Wave form: square positive, negative, symmetrical, saw A, B, triangle limited sin  
Peak value accuracy: 0.3% + 50uV  
Displayed values: peak, calculated rms

## Dry Block, Baths Calibrators



E INSTRUMENTS FLUKE  
EBRO  
PRESYS

### Model: TCS 1200

Range: from  $150^{\circ}\text{C}$  ( $300^{\circ}\text{F}$ ) to  $1200^{\circ}\text{C}$  ( $2190^{\circ}\text{F}$ )  
Absolute Stability:  $\pm 0.2^{\circ}\text{C}$  @  $1100^{\circ}\text{C}$   
Radial Uniformity:  $\pm 0.2^{\circ}\text{C}$  @  $1100^{\circ}\text{C}$   
Heating Speed:  $100^{\circ}\text{C}$  to  $1100^{\circ}\text{C}$  in 20 minutes  
Cooling Speed:  $1100^{\circ}\text{C}$  to  $800^{\circ}\text{C}$  in 50 minutes  
Stabilization Time: 15 minutes

## Precision Pressure Test Guage



KDS  
HUAXIN

### Model: DPC100-20(0.02,SG)

Accuracy: 0.02%, SG  
Pressure range : (0~600) bar  
Engineering unit selectalbe : Pa,kPa,MPa, psi, bar, mbar, mmH2O, mmHg  
Display: 6-digit resolution Back lighted display

## Process Calibrator



CHAUVIN  
ARNOUX HIOKI  
KEYSIGHT  
SEW  
EXTECH  
FLUKE  
HUAXIN  
IET LAB  
KDS  
PRESYS

### Model: C.A 1623

- Range: 0.00  $\Omega$  - 400.00  $\Omega$ ; 400.0  $\Omega$  - 1,500.0  $\Omega$ ; 1,500.0  $\Omega$  - 3,200.0  $\Omega$   
- Accuracy 4-wire input/ 2-wire/3-wire input/  
Output:  $\pm 0.1 \Omega$  ;  $\pm 0.5\Omega$ ;  $\pm 1\Omega/\pm 2\Omega$   
- Acceptable excitation in: 0.1 - 0.5 mA/ 0.5mA - 3.0mA ; 0.05mA - 0.8mA; 0.05mA - 0.8mA  
- Pt10 385

## Portable Pressure Calibrator



PRESYS  
FLUKE  
KDS

### Model: PCS-5070

Accuracy of 0.025 % of full scale.  
Input range  
-Volt: -10 to 11V and 11to 45V  
+Resolution : 0.0001V  
+Accuracy:  $\pm 0.02\%$  FS  
-mA: -5 tới 24.5 mA

## Comparison Test Pumps



HUAXIN  
KDS

### Model: HS318

Pressure Range: (0~600) bar  
Stability: Above 0.05%F.S  
Working Media: Transformer oil

## Sound Calibrator



EXTECH  
PULSAR  
TENMARS  
BK PRECISION  
ACO  
TESTO  
LUTRON

### Model: 407766

Frequency: 1000 Hz /  $\pm 5\%$   
Sound Pressure Level: 114dB /  $\pm 1$ dB  
Distortion < 2% Total Harmonic Distortion (THD)  
Operating Temperature: 32 to 122°F (0 to 50°C)

## Calibration Resistors



SEW  
SONEL  
AINUO  
IET LAB

### Model: RCB-3-1T(1T)

Resistance ranges ( $\Omega$ ): 1M, 10M, 100M, 1G, 5G, 10G, 100G, 500G

Resistance tolerances:  $\pm 1\%$ (F)

Tolerance:

$\pm 25\text{ppm}/^\circ\text{C}$  : 1M $\Omega$ , 2M $\Omega$ , 7M $\Omega$ , 10M $\Omega$ , 20M $\Omega$ , 30M $\Omega$ , 50M $\Omega$ , 100M $\Omega$ , 200M $\Omega$ , 500M $\Omega$

## Mechanical Calibration Equipment



METROLOGY

### Model: CTB-91000

Center Distance: 1000mm

Center Height: 170mm

Accuracy: 0.008mm

## Flow Calibration



BUCK  
FLUKE

### Model: M-30

Dimensions: 5.5L x 6W x 2.5D inches 14L x 15.3W x 6.4D cm

Flow range: 0.100 - 30 LPM

## 1.4. Electronic measuring devices

### IC Programmer, Tester



GW INSTEK  
BK PRECISION  
LEAPTRONIX

### Model: SU-3280

Logic Signal Level: 1.5V ~ 6.0V, 10mV

IOL, IOH Current: 10mA

Logic Signal Frequency: 75MHz (3-5V) / 60MHz (2.5V) / 45MHz (1.8V) / 25MHz (1.5V)

### LCR Meter



GW INSTEK  
PROTEK  
SANWA  
EXTECH  
PINTEK  
HIOKI  
TENMARS  
BK PRECISION  
GLOBAL  
KEYSIGHT  
MICROTEST CHROMA  
PROKITS  
TTI  
IET LAB

### Model: LCR-8110G

Wide Test Frequency 20Hz ~ 10/5/1MHz

0.1% Basic Accuracy & 6 Digits Measurement

Resolution

Large LCD Display with Intuitive Interface

Full Measuring Functions with DUT V/I Monitor

PASS/FAIL Function ( abs, % or delta) with Judgment Alarm

## Frequency Counter



TEKTRONIX  
PROTEK  
GW INSTEK  
ROHDE&SCHWARZ  
BKP RECISION  
EZ DIGITAL  
TTI

### Model: FC-7150U

Frequency measuring range : 0.1Hz~100MHz in A,B input  
80MHz~1.5GHz in C input(7150U only)  
Trigger level adjustment for input A

## Analog Oscilloscope



GW INSTEK  
METRIX  
PROTEK  
BK PRECISION  
EZ DIGITAL  
PINTEK

### Model: OS-5100

100MHz 2CH dual trace  
6 inch large size high luminance CRT  
Wider than specified frequency response  
Signal delay with delay line useful for observation

## Digital Oscilloscope



TEKTRONIX  
METRIX  
GW INSTEK  
PROTEK  
ROHDE&SCHWARZ  
OWON  
EZ DIGITAL  
BK PRECISION  
LECROY  
SALUKI  
KEYSIGHT

### Model: TBS1052B-EDU

Analog channels: 2  
Bandwidth: 50Mhz  
Sample rate: 1 GS/s  
Record length: 2.5k  
Bandwidth limited: 20 MHz  
Input coupling: AC, DC, GND  
Input impedance: 1 M $\Omega$   $\pm$ 1%, 50  $\Omega$   $\pm$ 1%  
Input sensitivity range: 1 M $\Omega$

## Handheld Oscilloscope



TEKTRONIX  
METRIX  
GW INSTEK  
PROTEK  
BK PRECISION  
OWON  
EXTECH  
SIGLENT

### Model: 2516

Bandwidth: 100 MHz  
Real Time Sampling Rate: 1 GSa/s (half-channel interleaved), 500 MSa/s (per channel)  
Channels: 2 isolated  
Max Memory Depth: 40 kpts  
Vertical Resolution: 8 bit

## Logic Analyzers



LEAPTRONIX  
LECROY

### Model: LA-2050

Timing Analysis: 500MHz  
State Analysis: 200MHz  
Bandwidth: 200MHz

## Function/Arbitrary Waveform Generators



TEKTRONIX  
GW INSTEK  
BK PRECISION  
PROTEK  
PINTEK  
ROHDE&SCHWARZ  
EZ DIGITAL  
OWON  
RIGOL  
KEITHLEY  
PICO  
METRIX  
SIGLENT  
LECROY  
GLOBAL  
HIOKI  
TTI

### Model: 4034

CHANNELS: 2  
Frequency: 0.1 Hz to 50 MHz  
Period: 20 ns to 10 s  
Width: 10 ns to (Period - 10 ns)  
Delay: 0 ns to (Period - Width - 10 ns)  
Duty Cycle: 1 to 99%  
Output amplitude: -10 V to +10 V into 50  $\Omega$  load  
Operating mode: Continuous, Triggered, Gated, Burst, External Width  
Pulse function: Single, Double  
Trigger input: Sensitivity 200 mVpp minimum

## 1.5. Telecom - TV Tester

### RF Voltmeter



GW INSTEK  
BOONTON

### Model: 9241

2 Chanel 1% accuracy at full scale  
Voltage Range : 200  $\mu$ V to 10 V in eight ranges, (300 V to 700 MHz with a 100:1 divider), Indications to 50  $\mu$ V

### Radio Stations Tester

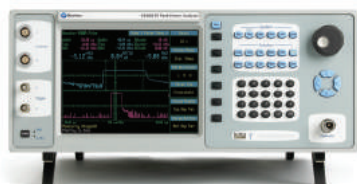


KONTOUR

### Model: RST-430

Band 1.6... 470 MHz  
Carrier setting error < 10<sup>-6</sup>\*  
Deviation in FM mode 0.1 ... 20 kHz (step 10 Hz)  
Deviation setting error < 10%

### RF, Microwave Power Meter



CHAUVIN ARNOUX  
PROTEK  
BOONTON

### Model : 4500B

8.4" TFT color LCD display  
Displays up to 4 measurement channels, 2 memory channels and 1 math channel simultaneously

## Measuring Low-Frequency Signals



KONTOUR

### Model: SVG-5

Frequency range 300 Hz ... 2.5 MHz  
Step 1 Hz, 10 Hz, 100 Hz, 1 kHz, 10 kHz  
Relative frequency instability  $\pm 1 \cdot 10^{-5} \%$   
Frequency setting error  $\pm 4 \cdot 10^{-5} \% \pm 1 \text{ Hz}$

## Audio Analyzer



KEITHLEY  
GW INSTRUK  
SEW  
BOONTON

### Model : 2015

THD, THD+Noise, and SINAD measurements. 5 standard audio shaping filters.  
20Hz-20kHz sine wave generator. 13 Digital Multimeter functions (6-1/2 digits).

## Base Station Analyzers



ANRITSU

### Model: MT8220T

2-port Cable and Antenna Analyzer 400 MHz to 6 GHz  
Spectrum Analyzer 150 kHz to 7.1 GHz  
Power Meter 10 MHz to 7.1 GHz

## Signal Analyzers



PROTEK  
ROHDE&SCHWARZ

### Model: A434L

VSWR, DTF, Cable Loss, Power Meter Functions  
Frequency Range : 5MHz ~ 4GHz

## Cable Telecom Test



SEW  
EXTECH  
BK PRECISION  
TENMARS  
HIOKI  
PROKITS

### Model: LC-90

LCD display.  
Test pin configuration for 10/100 base-T cable, 10 base-2 cable, RJ45/RJ11 modular cables, AT and T 258 A cable, EIA/TIA 568A/568B cables and Token Ring Cables etc.

## DC Power Supply Adjustable $\leq 1\text{KW}$



TEKTRONIX  
KEITHLEY  
GW INSTRON  
METRIX  
EXTECH  
EZ DIGITAL  
BK PRECISION  
QJE  
PINTEK  
OWON  
TTI  
ODA  
AINUO  
ITECH

### Model: ODP3031

Max output resolution : 1mV / 1mA  
Low ripples / low noise :  $300 \leq V_{rms}$  / 2 mVpp  
Up to 100 group timers  
Up to 10 group preset system configurations  
Over-voltage / Over-current protection  
Auto-cooling system  
3.9 inch high resolution (480 x 320 pixels) TFT LCD display  
Multiple communication interface : USB, and RS232

## AC Power Supply



GW INSTRON  
PRODIGIT  
EXTECH  
BK PRECISION  
UNI  
CHROMA  
AINUO  
ITECH

### Model: 5200A

AC Voltage Measurement:  
Range: 300Vrms  
Accuracy:  $\pm 0.3\%$  of rdg.  $\pm 0.2\%$  of f.s.  
Resolution: 0.1Vrms  
AC Current Measurement:  
Range /Resolution: 0.2A/0.1mA, 2A/0.1mA, 20A/10mA

## DC Electronics Load



KEITHLEY  
GW INSTRON  
BK PRECISION  
PRODIGIT  
PINTEK  
MAYNUO  
TTI  
ODA  
AINUO  
ITECH

### Model: 3311F

Max Power: 300W  
Current Max: 60A  
Operating voltage: 60V  
Display: V, A, W

## 1.6. Fitting And Repair Electronics Equipment

### Soldering Stations



WELLER  
PACE  
QJE  
ATTEN  
HAKKO  
QUICK  
GORDAK YAOGONG  
KAWH

#### Model: WSD811

Soldering station, 1CH, 80 W / 230 V  
Silver-Line Technology  
1 channel with soldering iron WSP 80 incl.  
soldering tip LT-B and safety rest WDH 10  
Dimensions W x D x H (mm): 170 x 118 x 102  
Channels: 1  
Voltage: 230 V  
Heating output: 95 W

### Conductive Rework Systems



WELLER  
PACE  
XYTRONIC

#### Model: PRC2000

Unit: PRC 2000 PRC 2000E  
PowerRequirements: 115VAC, 60Hz, 230VAC,  
50/60Hz, 400 Watts maximum 365 Watts maxi-  
mum

### Pre-Heaters



PACE  
MANNCORP  
SHUTTLESTAR

#### Model: MC-301

Effective Soldering Area: 9.84" x 7.87" (250 x 200 mm)  
Heating Chamber Size: 13.78" x 9.84" (350 x 250 mm)  
Temperature Range: Ambient - 310 °C

### Area Array (BGA) Rework



WELLER  
PACE  
MANNCORP  
ZHUOMAO  
SHUTTLESTAR

#### Model: IR 3000

Heater (top side): Medium/Long Wave IR, 500W  
Bottom Heater with adjustable: working height-  
Medium/Long Wave IR, 1000W 220 x 155mm  
(8.6" x 8.6")

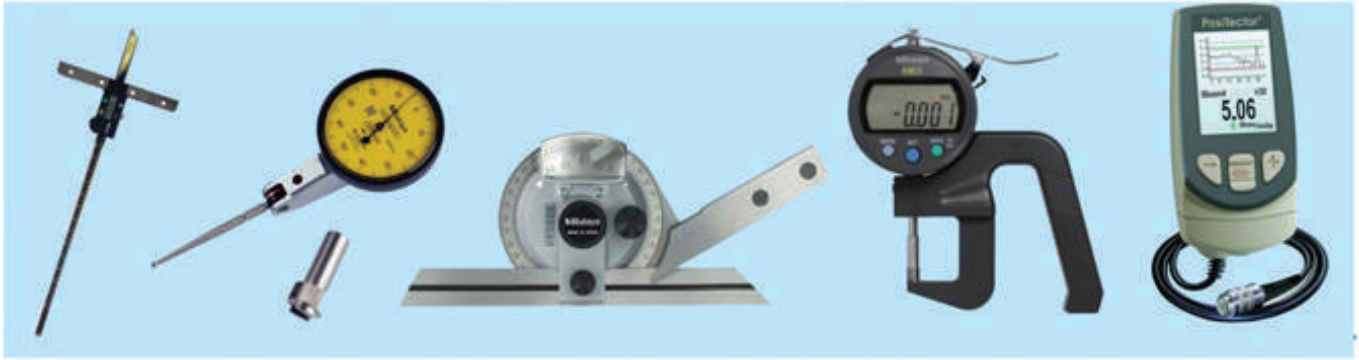
### Fume Extraction Systems



WELLER  
PACE

#### Model: ARM-EVAC 500

Part Number: 8889-0500-P1  
Power Requirements: 230 VAC, 50 Hz  
Noise Level: 61 dBA  
Number of Inlets: Three 75mm (3")



- Mechanical Measuring Instruments
- Non-Destructive Testing
- Bearing tools
- Hydraulics, Lifting equipment

## 2.1 Mechanical Measuring Instruments

### Digital outside micrometer



INSIZE  
MITUTOYO  
LUTRON  
METROLOGY  
MOORE & WRIGHT

**Model: 3109-25A**

Take detailed measurements of external diameter, thickness of sheet metal  
Design standard, compact, easy to use  
Range: 0 - 25mm

### Digital inside micrometer



INSIZE  
MITUTOYO  
METROLOGY

**Model: 3127-150**

Range: 125-150mm  
Resolution: 0.001mm/0.00005"  
Accuracy:  $\pm 5\mu\text{m}$   
Protection level: IP 54

### Digital Caliper



INSIZE  
MITUTOYO  
LUTRON  
MOORE & WRIGHT  
METROLOGY ASAKI

**Model: 500-502-10**

Range: 0 - 1000mm  
Accuracy:  $\pm 0.07\text{mm}$   
Resolution: 0.01mm

### Digital depth Caliper



INSIZE  
MITUTOYO  
MOORE & WRIGHT  
METROLOGY

**Model: 571-214-10**

Range: 0 - 450mm  
Graduation: 0.01mm  
Accuracy:  $\pm 0.002\text{ in}$   
Extension rods: 4 rods

### Digital height gauge



INSIZE  
MITUTOYO  
MOORE & WRIGHT  
METROLOGY

**Model: 1150-300**

Range: 0 - 300mm / 0 - 12"  
Resolution: 0.01mm / 0.0005"  
Accuracy:  $\pm 0.04\text{mm}$

### Protractor



INSIZE  
MITUTOYO  
MOORE & WRIGHT  
METROLOGY ASAKI

**Model: 187-907**

Capacity gauge to measure the angle Mitutoyo machinery, molds, ... always the most accurate measurements  
Can be used when measuring the height of fixed size  
Length of leaf size: 150, 150 mm

### Bore Gages



INSIZE  
MITUTOYO  
MOORE & WRIGHT  
METROLOGY

**Model: 2322-250A**

Range: 160-250mm  
Graduation: 0.01mm  
Accuracy:  $\pm 0.018\text{mm}$

### Thickness Gages



PROCEQ  
DEFELSKO  
SAUTER  
INSIZE  
MITUTOYO  
EXTECH  
ELCOMETER  
HUATEC  
SMARTSENSOR  
NOVOTEST  
DAKOTA

**Model: 7301**

Range : 0 - 10mm  
Resolution : 0.01mm  
Accuracy :  $\pm 15\mu\text{m}$

### Replica Tape Reader



PROCEQ  
DEFELSKO  
SAUTER  
HUATEC  
INSIZE  
MITUTOYO  
EXTECH  
ELCOMETER  
SMARTSENSOR  
NOVOTEST  
DAKOTA

**Model: UTG C1**

- Measurement Range: 1.00 to 125.00 mm (0.040" to 5.000")
- Thru-Paint Capability: no
- Measurement Rate – Normal: 6 readings/sec
- Measurement Rate – Normal: 20 readings/sec
- Resolution: 0.01 mm (0.001")
- Accuracy:  $\pm 0.03\text{ mm}$  ( $\pm 0.001"$ )
- Monochrome display with transfective technology enhances sunlight readability

### Dial Indicators



INSIZE  
MITUTOYO  
HOREX  
MOORE & WRIGHT

**Model: 513-415E**

Range : 0-1mm  
Resolution : 0.01mm  
Accuracy :  $\pm 0.01\text{mm}$

### Magnetic-Micrometer Stand



INSIZE  
MITUTOYO  
METROLOGY  
MOORE & WRIGHT

**Model : 7011S-10**

Stem hole :  $\varnothing 4\text{mm}$ ,  $\varnothing 8\text{mm}$ ,  $\varnothing 9.53\text{mm}$   
Size of magnetic stands (WxD) : 50x58mm

### Granite Surface Plate



INSIZE  
MITUTOYO  
METROLOGY

**Model: 6900-1101**

Size (LxWxH): 1000x1000x150mm

Weight : 450 Kg

Accuracy : 0.0048mm

### Gauge Block



INSIZE  
MITUTOYO  
MOORE & WRIGHT

**Model: 4100 -122**

Includes 122 blocks

- Made of alloy: steel

- Accuracy: grade 0 standard

- Meet ISO3650

- Supplied with inspection certificate

### Steel Ruler



INSIZE  
MITUTOYO  
CROSSMAN  
ASAKI  
TOPTUL

**Model: 7110-1000**

Range: 0-1000mm

Accuracy: 0.20mm

### Distance Meters



LEICA  
BOSCH  
INSIZE  
EXTECH  
FLUKE  
SMARTSENSOR  
M&MPRO  
PREXISO  
STANLEY

**Model: D2- DISTO**

This unit contains a Class II Laser with 1mW output

1/16" Accuracy up to 200-Feet Measuring Range. Quick and easy-measure distances at the touch of a button and calculate areas or volumes. Small and handy; fits into any pocket plus a 2 Year Warranty.

IP54 Certified Dust & SPLASH PROTECTED.

### Diameter Measurement Caliper



HAGLOF

**Model: 11-100-1106**

Ranger: 0-1020mm

Material Scale: Alloy coated aluminium, non-reflective

### Shims



BEGA

**Model: 100-100CW**

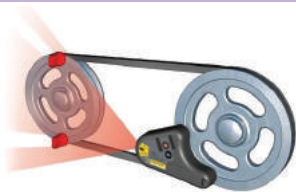
Model: 100-100 CW

No: B100070

Size: 100X100X1.00mm

Size in: 32 mm

### Laser Pulley, Shaft Alignment Systems



EASYLASER  
FIXTURLASER  
VIBRO-LASER

#### Model: BEGAD90

Sheave diameters: B 60 mm (2.5") and larger  
Sheave thickness: Not depending on sheave thickness

### Vibration - Acceleration - Balancing



MMF  
BEGA  
ADASH  
HUATEC  
TOKYO-KEIKI  
EXTECH  
SMARTSENSOR  
LUTRON  
BRUEL & KJER  
M&MPRO  
ZBL  
ACO  
SPM

#### Model: HG6360

Acceleration 10Hz đến 1KHz, 10Hz to 10KHz:  
0.1-200m/s  
Velocity 10Hz to 1KHz: 0.1-400mm/s  
Displacement 10Hz to 1KHz: 0.001-4.0mm  
Accuracy: <5%  
Auto power off  
RPM (revolution): 5-100000r/min  
Frequency: 0.1 to 10KHz

### Torque Meter



INSIZE  
SAUTER  
LUTRON  
MOUNTZ

#### Model: TQ-8800

Professionals with torque meter  
15 Kg-cm torque probe, whole.  
3 kind display unit: Kg-cm,  
Kg-cm, cm LB-inch and Newton.

### Gloss Meter, Roughness Meter



DEFELSKO  
INSIZE  
HUATEC  
MITUTOYO  
ELCOMETER  
HINOTEK

#### Model: SPG3-E

Hi Contrast reversible color LCD  
Measuring Range: 0 to 500 um (0 - 20 mils)  
Accuracy: (5 microns + 5%) , (0.2 mils + 5%)  
Storage of 100,000 readings in up to 1,000  
batches and sub-batches

### Force Gauges Meter



DILLON  
SAUTER  
KERN  
INSIZE  
EXTECH  
LUTRON  
ELCOMETER

#### Model: FH 100K

Measuring range max: 100kN (10 ton)  
Readout: 50 N  
Precision: 0,5 % of (Max)  
Measuring frequency: 2000 Hz  
Overload protection: 150 % of (Max)  
Selectable measuring units: N, lb, kg, kN, t  
Turnable display with backlight

### Force Gauges Meter



DILLON  
SAUTER  
KERN  
INSIZE  
EXTECH  
LUTRON  
ELCOMETER

**Model: AWT05-508112, Viettel**

-Tension capacities:  
2000 lb/10 kN/1000 kg  
Wire sizes: 3/16 inch through 1 inch  
-Accuracy: +3% instrument capacity (calibrated to specific wire size & type  
+5% with same wire diameter as calibrated but different wire type)  
-Loading error: Cable elongation of only 0.08 inch (2mm)

### Indicating Torque Wrench



INSIZE  
KTC  
TOPTUL  
KANON  
MOUNT

**Model: TB306WG3**

Range Resources: 6-30 Nm  
Lever-type ratchet (L) : 3/8 Inch

### Gloss Meter, Roughness Meter



DEFELSKO  
INSIZE  
HUATEC  
MITUTOYO  
ELCOMETER  
HINOTEK

**Model: ISR-CS130-W**

Flat lapping: 0.05, 0.1 , 0.2µm  
Reaming: 0.4, 0.8, 1.6µm  
Plain grinding: 0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm  
Horizontal milling: 0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm

## 2.2. Non-Destructive Testing

### Video Borescope



EXTECH  
FLIR  
CEM  
THREE-IN-ONE

**Model: HDV650W-30G**

- 25mm camera head (60° FOV, long depth of field) with built-in bright 12 LEDs for illuminating the problem areas  
Wireless handset/transmitter with brightness and

### Ultrasonic Flaw Detector



PROCEQ  
HUATEC  
ELCOMETER  
NOVOTEST  
DAKOTA  
ULTRASONICS

**Model: Proceq 100 (has UT/TOFD)**

Configuration: 2 UT Channels  
Transducer Socket: Lemo 1 and BNC  
Pulse Voltage: -100 to -450 V (in steps of 10 V)

### X ray-MachineT



HUATEC

**Model: XXH-3205**

Output voltage (Kv): 180 - 320

Input (KW): 3.2

Focus spot (mm): 1.0 x 4.0

Level target: 25° + 5°

### Thickness Gages



PROCEQ  
DEFELSKO  
SAUTER  
HUATEC  
EXTECH  
INSIZE  
MITUTOYO  
ELCOMETER  
SMARTSENSOR  
NOVOTEST  
DAKOTA

**Model: UTG M3**

- Probe Style: 5 MHz Contact

- Mode: Single Echo

Measurement Range: 1.00 to 125.00 mm  
(0.040" to 5.000")

- Mode: Multiple Echo

Measurement Range: 2.50 to 60.00 mm (0.100"  
to 2.500")

- Thru-Paint Capability: yes

- Measurement Rate – Normal: 4 readings/sec

### Hardness Meter



PROCEQ  
SAUTER  
INSIZE  
HUATEC  
MITUTOYO  
METROLOGY  
SMARTSENSOR  
NOVOTEST

**Model: ISH-SPHA**

- Steel & cast steel : 20-68(HRC), 38-100(HRB),  
81-654(HB), 81-955(HV), 32-100(HS), 375-2639(M-  
pa)

- Cast iron : 93-334(HB)

### Hardness meter



PROCEQ  
SAUTER  
INSIZE  
HUATEC  
MITUTOYO  
METROLOGY  
SMARTSENSOR  
NOVOTEST

**Model: HR1500**

Load cycle: 3~8s

Load dwell duration: 2~50s, can be set

Resolution :0.1HR

Display:High definition backlight LCD

Operation:Menu selectable, Membrane  
keypad

### Concrete Test Hammer



PROCEQ  
HUATEC  
ELCOMETER  
SJJW

**Model: HTH-225 V**

Measuring ranges: 10-60MPa

Impact energy: 2.207J

Spring constant: 785N/m

Spring extension: 75mm

### OpticScan 3D Scanners



SHINING 3D

**Model: OpticScan-DL-Classic**

Measuring Area by single Scan:  
400mmx300mm(adjustable)  
Accuracy: 0.04mm - 0.02mm

### Eddy Current Conductivity Meter



HUATEC

**Model: HEC102**

Measurement technology: Eddy current  
Operating frequency: 60KHz  
Instrument case: Anti-intense impact,  
water-proofing polyester

### CNC Measuring System



METROLOGY

**Model: II-AF250**

Measuring Range(XYZ): 250\*150\*150mm  
Resolution : 0.001mm/0.00005"  
Measuring Accuracy :  $\pm(2+L/200) \mu\text{m}$  (X, Y Axis)  
Main structure: DIN 00 grade granite table  
master base & Z axis T type granite column

### Profile Projector



HUATEC  
INSIZE  
METROLOGY

**Model: HB-16**

Sturdy metal design with the novel shape  
Excellent optical path with the sharp image  
Large X, Y measuring travel stage with the  
precision accuracy  $(3 + L/50) \mu\text{m}$   
Digital Multifunctional digital readout DC5000  
with the strong process function  
Touch panel switch protects the operator' safe  
Screen diameter:  $\phi 400 \text{ mm}$  (16'')

### Microscope



KERN  
INSIZE

**Model: ISM-PM200SB**

Magnification: 10X - 200X  
Pixel: 2M (1600 x 1200)  
Type: short focus distance  
Illumination: built-in adjustable LED  
Focus support: included  
Power supply : USB 2.0 cable (voltage required:  
 $5 \pm 0.1\text{V}$ )

### Handheld X-ray Fluorescence Spectrometer



HUATEC

#### Model: XRF Pocket 110

Wide range of measurable elements: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Nb, Mo, Sn, Hf, Ta, W, Re, Pb, Bi, Se, Sb, Pb, Au and Hg  
Working principle: XRF analysis exploiting X-ray

### Coating Thickness Meter



DEFELSKO  
SAUTER  
INSIZE  
EXTECH  
ELCOMETER  
SANKO  
HUATEC  
SMARTSENSOR

#### Model: 6000 FNS3

Non-Conductive coatings on Non-Ferrous Metals Aluminum, Copper etc.  
Non-Magnetic coat-ings on FerrousMetals (Steel & Iron)  
- Range: 0 – 1500  $\mu\text{m}$  (0 – 60 mils)

### Adhesion Tester



DEFELSKO  
SAUTER  
INSIZE  
EXTECH  
HUATEC  
SMARTSENSOR  
ELCOMETER SANKO

#### Model: ATA20A-B

| Adhesion | Dolly size       | Max Pull-Off Pres-<br>sure |         |
|----------|------------------|----------------------------|---------|
|          | 10 mm (option)   | 10000 psi                  | 70      |
| MPa      |                  |                            |         |
|          | 14 mm (option)   | 6000 psi                   | 40      |
| MPa      |                  |                            |         |
|          | 20 mm*(include)  | 3000 psi                   | 20      |
| MPa      |                  |                            |         |
|          | 50 mm** (option) | 500 psi                    | 3.5 MPa |

### Gold and Diamonds Tester



SAUTER

#### Model: TD GOLD 40

Measuring head diameter: 6 mm  
Measuring range (Max): 22,500 cm (steel), 4cm (gold)  
Precision (of (Max)): 0,005  
Readout (d): 10  $\mu\text{m}$   
Test frequency: 5 MHz  
You can use the TD-GOLD to determine whether gold bars and coins are genuine or whether they contain a core of a different material  
The instrument measures the thickness of gold bars and gold coins using ultrasound

### Cover Meter & Rebar Detector



PROCEQ  
ELCOMETER  
SJJW  
NOVOTEST  
ZBL

#### Model: ProfometerPM-630

+ Cover Measuring Range: Up to 185 mm (7.3 inch)  
+ Cover Measuring Accuracy:  $\pm 1$  mm to  $\pm 4$  mm (0.04 to 0.16 inch)

### Permeability Test



PROCEQ

#### Model: Torrent

Memory: non-volatile memory for 200 measured objects  
Display: 128 x 128 graphic LCD  
Interface: RS 232 or optional adapter to USB

### Ultrasonic Pulse Velocity



PROCEQ  
NOVOTEST  
ZBL

#### Model: 5100

Acoustic transit time accuracy:  $0.025\mu\text{s}$   
Dynamic range: 154dB  
Receiver sensitivity:  $\leq 10\mu\text{V}$   
Emission voltage(V): 65, 250, 500, 1000 V adjustable

### Rebar Corrosion Detection



PROCEQ  
ZBL  
HUATEC  
SJJW

#### Model: ZBL-C310A

Measuring range  $\pm 1000\text{mV}$   
Accuracy 0.1mV  
Single electrode:  
Tested points Interval X: 0 ~ 100 adjustable  
Tested points Interval Y: 0 ~ 100 adjustable  
Double electrode: Tested points Interval X: 20 fixed

### Floor Clab Thickness Meter



SJJW

#### Model: CH800-A

Thickness test range (mm) : 40 - 600  
Thickness test accuracy 40 - 400(mm) :  $\leq \pm 1\text{mm}$   
Thickness test accuracy 401 - 600 (mm) :  $\leq \pm 2\text{mm}$   
Data storage capacity : 40000 test point data

## Pull Off Tester For Concrete



PROCEQ

### Model: DY-206

Dimensions of housing: 109 x 240 x 205.5 mm  
Operating temperature: -10 to 50°C (14 to 122°F)  
Storage temperature: -10 to 70°C (14 to 158°F)  
Display: in N/mm<sup>2</sup> based on dia. 50 mm test disc

## Steel Structure Analyzer



NOVOTEST

### Model: KRC-M2

- + Measurement of coercive force
- + Current measurement
- + Code measurement (units)
- + Additional scale for calibration

## Temperature & Humidity Test Chamber



SH SCIENTIFIC  
JEIOTECH  
MEMMERT  
KOMEQ

### Model: SH-CTH40TSC

Time Range: -15°C ~ 150°C  
Humi Range: 30%~99% at Temp 20°C~80°C  
30%~95% at Temp 20°C~85°C  
25% at over 85°C

## 2.3 Bearing Tools

### Bearing Heaters



BEGA

### Model: 24RSDi

Device indicated for heating bearing, gear...  
Power: 3.6 KVA  
Voltage: 230V  
Frequency: 50/60 Hz  
Max. temperature 240°C

### Pullers



BEGA  
CROSSMAN  
ASAKI  
TOPTUL

### Model: HXPM 100 t

Capacity in tons: 100  
Max. stroke in mm: 270 with 4 adapters extensions 900 mm  
Max. spread in mm: 1500  
Min. spread in mm: 200  
Max. shaft length in mm: 1215

### Hydraulic Pullers



BEGA  
CROSSMAN  
ASAKI  
TOPTUL

**Model: HSP 303**

Capacity: 30 ton  
Shaft length Max: 465mm  
Spread Max: 680 mm  
Stroke: 111 mm

### Toolset Impact 39



BEGA

**Model: IMPACT 39**

This fitting tool set has been specially designed for quick, accurate and safe mounting of bearings with a bore varying from 10 to 60 mm.

## 2.4 Hydraulics.

### Hydraulic Cilinders



BEGA

**Model: JLLC400112**

Capacity (ton): 400  
Max. working pressure bar: 700 Bar  
Stroke mm: 300  
Height Retr. mm: 585  
Height Ext mm: 885

### Bottle Jack



BEGA  
MASADA

**Model: MH-100Y**

Capacity: 100 ton  
Min Height: 305 mm  
Lift: 145 mm

### Hydraulics Pumps



BEGA

**Model: HC2000 SET**

Materials: Steel  
Pressure rating (bar): 700  
Usable oil capacity cm3: 2000

### Hydraulic Spreader, Lifting



BEGA

**Model: 25 TLS SET**

Capacity (ton): 25  
Max. spread mm: 16  
Min. spread mm: 5  
Max. pressure bar: 700



- Provide various solution for Mechanical and physical testing
- Testing Mechanical products
- Testing Motor Vehicle
- Testing Package, Bottle, Medicine, Electric-electronic part

#### Temperaturer & Humidity Test chamber



ARALAB  
ASLI  
JEIOTECH  
KMT  
KOMEK  
MEMMERT  
SH SCIENTIFIC  
SYMOR

**Model: PVM-100**

No: AAHK4058K  
Volume: 1000L  
Range: -5 ~ 100  
Size: 1720x1650x1534 mm  
Size in: 1000x910x1100 mm  
Weight: 440 kg

#### Tensile, Compression Tester



ASLI  
EBP  
KMT  
LABTHINK  
LARYEE  
MSTECH  
PCE  
SAUTER

**Model: TVM20KN120N**

Max. Test Force: 20000N  
Dimension: 580x 345x 1200 mm  
Gross weight: 83 kg

#### Salt Spray, Corrossion Testing Chamber



ASLI  
ESTON  
KMT  
MSTECH  
SYMOR

**Model: SDH-60**

Lab Capacity (L): 110  
Saline Capacity (L): 15  
Spray Volume: 1.0~2.0ml /80cm2/h  
Internal Dimension: 600x450x400 mm  
External Dimension: 1100x600x1200 mm

#### Mechanical Shock Tester



ASLI

**Model: SS-5**

Max. Load Capacity: 5Kg  
Bench Size: 120x120 mm  
External Dimension: 800x2200x900 mm  
Weight: 600Kg

#### Thermal Shock Tester



ARALAB  
ASLI  
ESTON  
KMT  
KOMEK  
MSTECH

**Model: KTS-200D**

Internal Dimension: 670x600x500  
External Dimension: 1720x2000x1850  
Capacity: 200L  
Test chamber: -65°C ~150°C  
Test weight: 15 kg

#### Rain Spray Test Chamber, Waterproof test



ASLI  
ESTON  
LABTHINK  
LISUN  
MSTECH  
SYMOR

**Model: RT-1000A**

Internal Dimension WxHxD (mm):  
1000x1000x1000  
External Dimension WxHxD (mm):  
1600x1900x1400  
Rain of Pipe-Swing Test  
IPx3 IPx4 swing pipe: RT~±80°C  
Flow:0.07L/min per Nozzle  
Water Spray Test  
IPx3 IPx4 jet:2.5m~3m  
flow :12.5L/min ~100L/Min

#### Impact Testing Machine



KMT  
MSTECH  
LABTHINK  
LARYEE

**Model: CMT2230**

Impact energy: 150J; 300J  
Impact velocity: 5.2m/s  
Power supply: 3 Phase, ~380V/220V, 50Hz/60Hz  
Dimension: 2100x650x1900 mm  
Weight(Kg): 600kg

#### Sand and Dust Test Chamber



ASLI  
SYMOR

**Model: DT-F1**

Concentration of Sand and Dust: F1:  
60000mg/m3  
Internal Dimension WxHxD (mm):  
1000x1000x1000  
External Dimension WxHxD (mm):  
1600x1800x1300

#### Light, UV, Xenon Test Chamber



ASLI  
SYMOR

**Model: ASLI SFT-900A**

Power Device: U.V.R light (single tube type)  
Internal Dimension WxHxD (mm):700x900x700  
External Dimension WxHxD  
(mm):1200x1900xD00  
Testing Time: 24H, LED display  
Testing Voltage: Discharge Voltage 120-145V  
Testing Current: Discharge Current 15A-19A

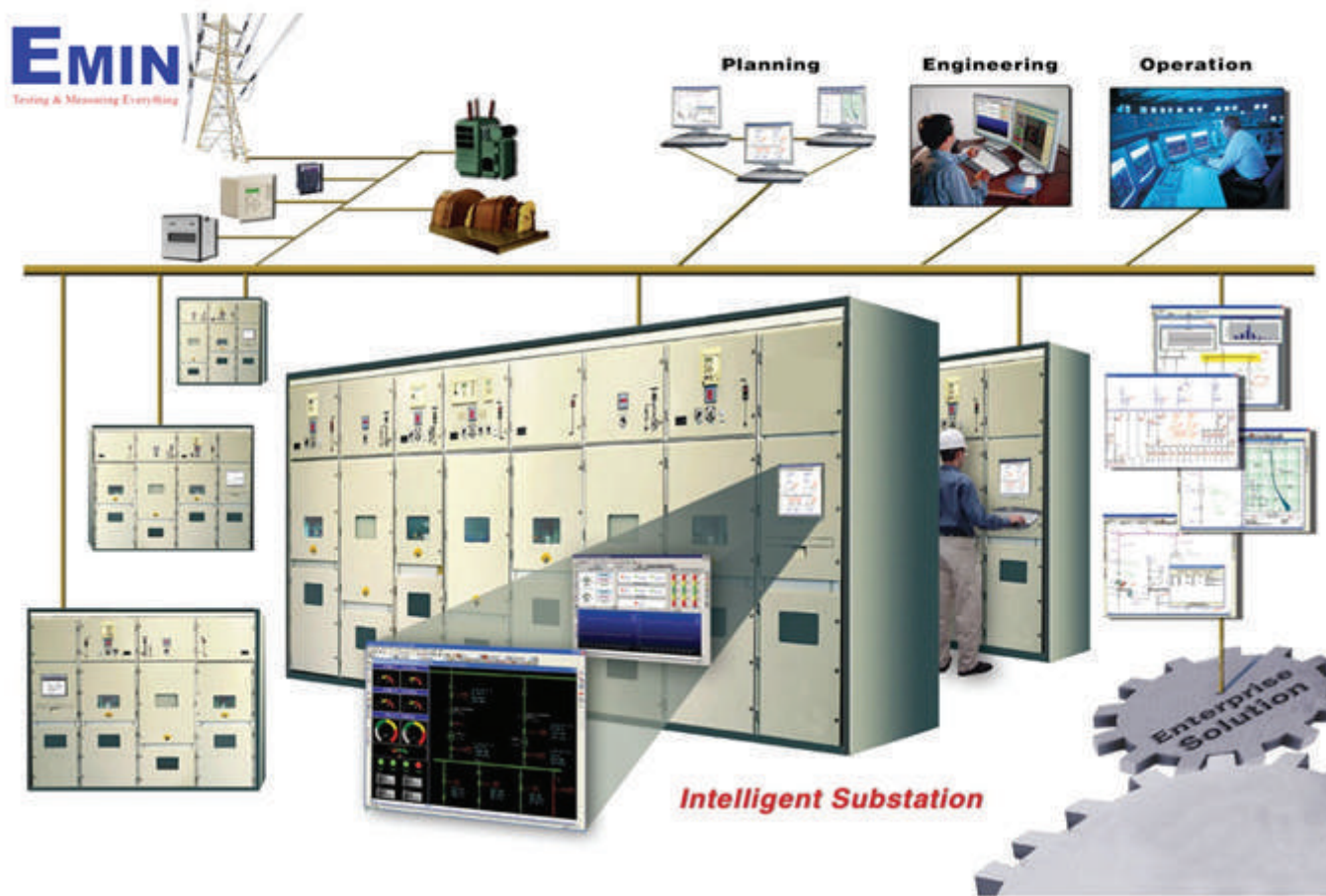
#### Paper Packaging Test Equipment



ASLI  
CELL  
INSTRUMENT  
HAIDA  
KMT  
LABTHINK  
SAUTER

**Model: HD-A513-1**

Capacity (Optional): 10, 20, 50, 100, 200 kg  
Resolution: 1/100,000  
Precision: < 0.5%  
Dimension (LxWxH): 790x510x1060 mm  
Weight: Approx. 51 kg



## IoT cloud



## PLC S7-300



SIEMENS

**Model: 6ES7314-6CH04-0AB0**  
SIMATIC S7-300, CPU 314C-2 DP  
COMPACT CPU WITH MPI,  
24 DI/16 DO, 4AI, 2AO, 1 PT100,  
4 FAST COUNTERS (60 KHZ),  
INTEGRATED DP INTERFACE,  
INTEGRATED 24V DC POWER SUPPLY,  
192 KBYTE WORKING MEMORY,  
FRONT CONNECTOR (2 X 40PIN) AND  
MICRO MEMORY CARD REQUIRED

## HMI S7-200/300/400



SIEMENS

**Model: 6AV6644-0AA01-2AX0**  
SIMATIC MP 377 12" TOUCH  
MULTIPANEL, WINDOWS CE 5.0  
12" COLOR-TFT-DISPLAY  
12 MB USER MEMORY  
CONFIGURABLE FROM  
WINCC FLEXIBLE 2007

## Inverter Siemens



SIEMENS

**Model: 6SE6440-2UD42-0GA1**  
Inverter power: 200 KW.  
Power supply: 3 phase 380-480V, 45-63Hz.  
The frequency range: 0.1 - 650 Hz.  
6 programmable digital inputs.  
2 analog inputs.  
2 analog outputs: 12:25 - 20mA.  
Dimensions H x W x D: 1533 x 326 x 545.  
Output relay: 3.  
Method of control: V / f; Vector, Moment;  
control information flow from the FCC.  
Overload capability: 136% 57S, 160% 3s.

## Soft starter Siemens



SIEMENS

**Model: 3RW4076-6BB44**  
SIRIUS SOFT STARTER, S12,  
432 A, 250 KW/400 V, 40 DEG.,  
200-460 V AC, 230 V AC,  
SCREW TERMINALS

## MCCB 3 phase



LS

**Model: ABS1203b1200A**

Number of poles: 3

Rated current: 1200A

Short circuit current: 65kA

## Contactor



LS  
SIEMENS

**Model: MC-800a**

Number of poles: 3

Rated current: 800A

Coil voltage: 220VAC

Auxiliary example: 2NO + 2NC

## Thermal Overload Relays



LS  
SCHNEIDER

**Model: MT-800 (520-800A)**

Number of poles: 3

Current: 520 - 800A

Voltage input: 380V

## Capacitors



SHIZUKI

**Model: 50KVAr/415V**

Size: 50KVAr

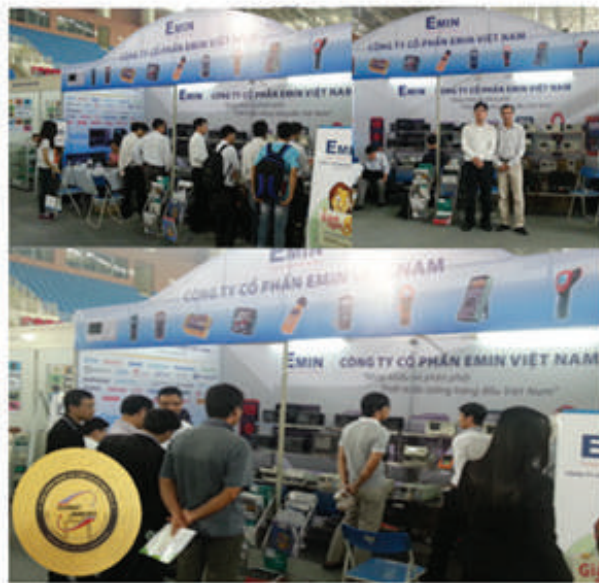
Voltage capacitor: 415v/3P-50Hz



EMIN at Agroviet 2013



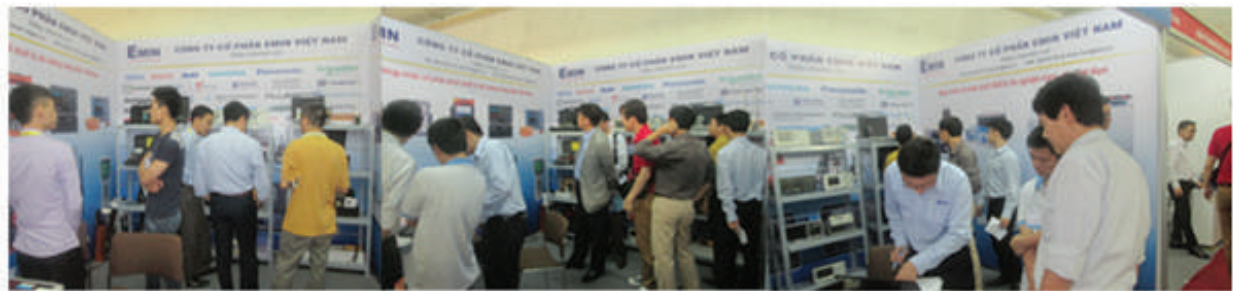
EMIN Draminski workshop



EMIN at Techmart 2013



EMIN at Agroviet 2014



EMIN at Expo 2014



EMIN at VIIF 2014



**EMIN at E&A HaNoi 2015**



**EMIN at NEPCON Vietnam 2015**



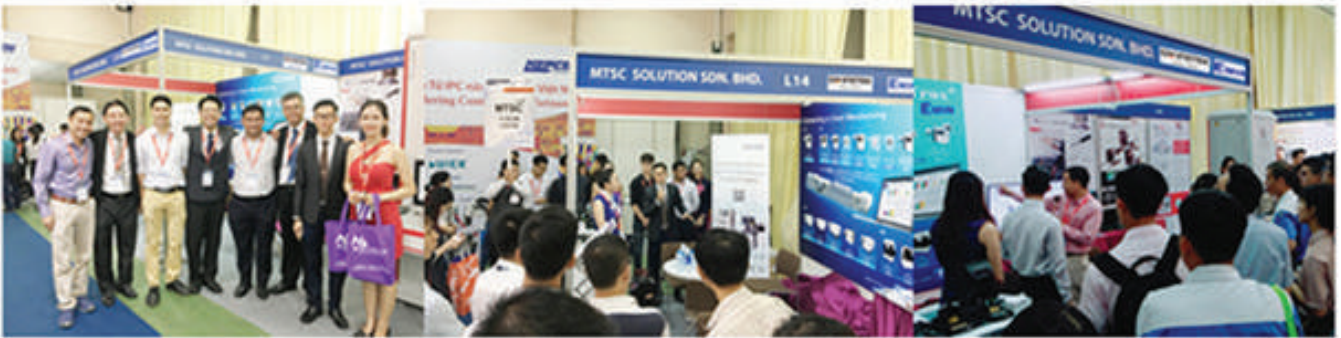
**EMIN at E&A HCMC 2015**



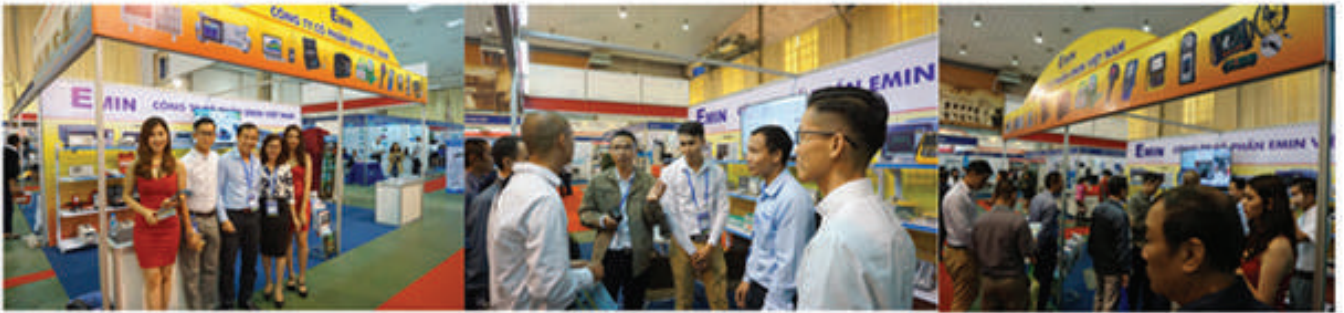
**EMIN at Techmart Hanoi 2016**



**Global Technology supply and demand Connection point**



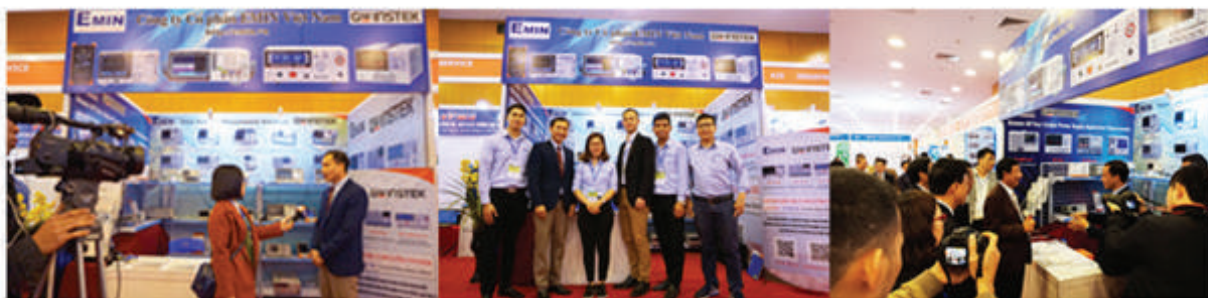
**EMIN at NEPCON 2017**



**EMIN in Vietnam International Industrial Fair (VIIF) 2017**



**EMIN at VINAMAC EXPO 2017**



**EMIN at FBC Hanoi 2018**



**EMIN at TAIWAN Expo 2018**



**EMIN at VIIF 2018**



**Measuring & Testing Workshop 2018**



**Tektronix IOT Workshop 2018**



**GWinstek Back-to-Basic Workshop 2018**



**Rohde&Schwarz Workshop 2019**



# EMIN GROUP

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