

Measuring and Control Systems for the **Cable, Wire** industry

Induction Preheater
Cable Printer
Laser Micrometer
High Frequency Spark Tester
Measuring Counter
High Voltage Tester
Talc Master
Graphite Machine
Lump Detector



Sungmin Instruments
<http://www.smem.co.kr>



SUNGMIN INSTRUMENTS is the biggest specialized company manufacturing measuring test equipment and major facilities related with electric wires in the country and has concentrated its efforts on continuous research and development of key technologies since its establishment in 1988, and is a specialized company related with electric wires importing, localizing and supplying key equipment of each sector such as electric, electronic, precision instrument, electric wires industry sector. With trust and pride, we have developed test equipment of an electric wire measurement and products for residential facilities and on the basis of endless improvement of product quality of products and trust acquired from quality developments,

SUNGMIN INSTRUMENTS has accomplished technological innovation for many years to give fruition of trust with efforts of endurance.

We can guarantee you that we'll achieve the growth of business with internal stability and conscientious and strong management as well as long-term appreciative eyes in rapidly changing world market.

SUNGMIN Measuring Control Instrument

ELECTRO EQUIPMENTS FOR THE CABLE INDUSTRY

CABLE & WIRE MACHINES

MINUTENESS MEASURE EQUIPMENT



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Electro Equipments For The Cable Industry

Produce work

Preheater



IP-220P20

HP-220P48

IP-300P30

AC 50/60Hz Spark Tester



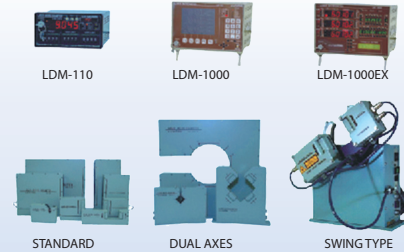
SM-15HF

SM-15ST40

SM-15ST80

SM-30ST180

Laser Micrometer



LDM-110

LDM-1000

LDM-1000EX

STANDARD

DUAL AXES

SWING TYPE

Lump Detector/Lump Neck Down Detector



TM-1003W

TM-3002W

TM-3004WA

TM-4002

Cable Printer

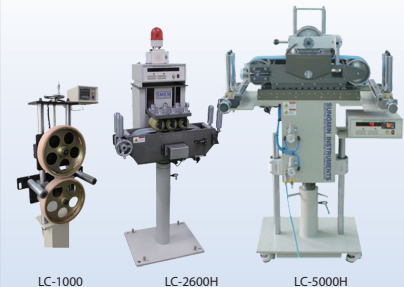


PRT-SL80

PRT-SH500

PRT-DH1000

Length Measuring Counter



LC-1000

LC-2600H

LC-5000H

Extension work

Corona Master



CM-300

CM-GAS

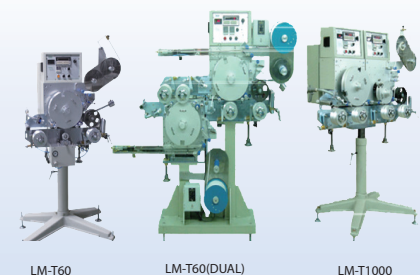
Powder coating machine



TM-E40

GM-E200

Length counter

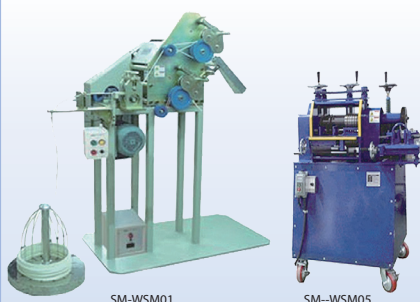


LM-T60

LM-T60(DUAL)

LM-T1000

Wire Stripping Machine



SM-WSM01

SM-WSM05

Display Unit



DC-1505B

DC-1204BSD

DC-N1505BCSD

Memory Counter



MC-300D

Extra High Voltage Tester



AC-DC High Voltage Tester



AC High Current Tester



Tensile Tester



Tensile Testing Machine



Low Temp., Bending, Shock, Tensile Testing Machine



Fire Resistance Tester



IEEE 1202 / Smoke Density Tester



BS 50399 / Vertical Flame Tester



Cable Endurance Tester



Twisting Endurance Tester



Cable Banding Tester



Aging oven, Water/Oil bath



Low & Humidity Cycle Chamber



Parallel Plate Plastmeter





High Frequency Spark Tester



Series High Frequency Spark Tester



| Product Features |

High frequency sine wave spark tester, SM-15HF, accomplish considerable reliability in spite of high speed wire or very small defect.

- Easy to control and repair.
- Compact design.(360×105×300)
- Rigid one frame body.(SM-15HFB)
- Good appearance stand.(SM-15HF)
- Corrosion free stainless steel electrode.
- Disassembled electrode can be installed anywhere and easy to more up-down adjusting wire center

| Industry Standards |

UL, CSA, NEMA, MIL, JIS, KS

| Specifications |

● CONTROLLER

TYPE	SPECIFICATION
Output voltage	100~1500V
Output frequency	2500~3500Hz depending on load capacitance.
Load Current	Resistive 4mA, Capacitive 35mA
Voltage indication	4 Digits LED
Fault indication	5 Digits electrode mechanical counter.
Line speed	Max. 1300mpm
Fault indication	LED lamp and Optionally available, alarm unit.
Contact outputs	Spark faults relay 250V 5A, Excess faults relay 250V 5A
Interface	Be able to adjust output voltage and reset from our of tester.
Data print	Be able to print out deface point, line speed, length with connecting length counter and also can be applied to production management
Input power	Transformer 200/220VAC 50/60Hz 1 Phase 200VA.
Weight	Control unit + Detector = 15.5kg
Size	300×170×280
Test type	0.5~16mm
Cable diameter	bead chain

AC 50Hz 60Hz Spark Tester

ST Series AC 50Hz 60Hz Spark Tester



SM-15ST40

Product Features

This tester is general device that detect the insulation defect at cable manufacturing process. When the defect point(bare wire, pin hole, dust, scar) pass through the tester it can find out insulation defect point.

※ Option : Print out insulation defect point, line speed, time, wire, length by adopting memory and / or printer

- Good appearance stand.(SM-15ST40)
- Compact panel.
- Rigid one frame body.
- Easy to repair and control.
- Corrosion free stainless steel electrode.
- Disassembled electrode can be installed anywhere and easy to align the cable.



SM-15ST80

Specifications

MODEL	SIZE (W)×(D)×(H)mm	DIAMETER RANGE	TEST VOLTAGE	ELECTRODE RENGTH
SM-15ST40	500×300×1170	20mm	15KV 50/60Hz	350mm
SM-15ST80	600×480×1250	40mm	15KV 50/60Hz	250mm
SM-15ST120	600×480×1250	80mm	15KV 50/60Hz	250mm
SM-15ST180	600×480×1250	150mm	15KV 50/60Hz	250mm
SM-30ST80	600×480×1250	40mm	30KV 50/60Hz	250mm
SM-30ST120	600×480×1250	80mm	30KV 50/60Hz	240mm
SM-30ST180	800×600×1350	150mm	30KV 50/60Hz	240mm
SM-50ST120	800×650×1350	80mm	50KV 50/60Hz	220mm
SM-50ST180	800×650×1350	150mm	50KV 50/60Hz	220mm
SM-50STR300	800×800×600	150mm	50KV 50/60Hz	300mm
SM-15ST40-MP	600×480×1250	40mm	15KV 50/60Hz	200mm

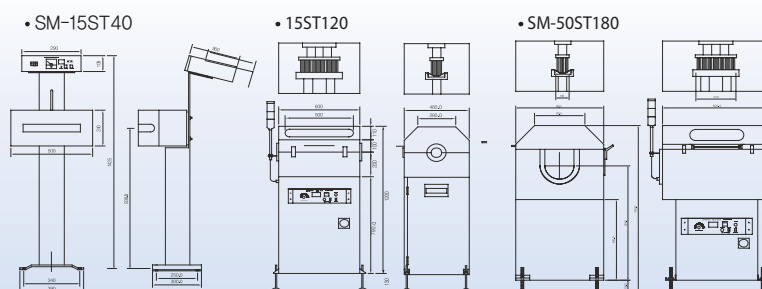
M: Memory counter option

P: Data printer option



SM-30ST180

Dimension





Laser Micrometer



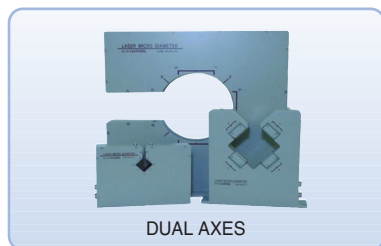
Series Laser Micrometer



LDM-110



STANDARD



DUAL AXES



SWING TYPE

Product Features

- Long life semiconductor laser lasting up to 100,000hours equipped.
- A high precision Flens allows high linearity.
- Very small measuring error if object is vibrating. No influence to the measured value by ambient light such as the sunlight, etc.
- Available to measure opaque/transparent object such as glass, plastic, etc.
- Maintenance free, calibration free.

Specifications

TYPE	MODEL	RANGE	ACCURACY	RESOLUTION
STANDARD	LDM-301H	0.02-1mm	$\pm 1\mu\text{m}$	0.1 μm
	LDM-302H	0.05-5mm	$\pm 1\mu\text{m}$	0.1 μm
	LDM-303H	0.3-30mm	$\pm 2\mu\text{m}$	0.1 μm
	LDM-304H	0.5-90mm	$\pm 5\mu\text{m}$	1 μm
	LDM-305H	1-180mm	$\pm 10\mu\text{m}$	1 μm
	LDM-306H	2-300mm	$\pm 30\mu\text{m}$	1 μm
SEPARATE	LDM-303H-SP	0.3-30mm	$\pm 2\mu\text{m}$	0.1 μm
	LDM-304H-SP	0.5-90mm	$\pm 5\mu\text{m}$	1 μm
	LDM-305H-SP	1-180mm	$\pm 10\mu\text{m}$	1 μm
	LDM-306H-SP	2-300mm	$\pm 30\mu\text{m}$	1 μm
DUAL AXES	LDM-302H-XY	0.05-5mm	$\pm 1\mu\text{m}$	0.1 μm
	LDM-303H-XY	0.3-30mm	$\pm 2\mu\text{m}$	1 μm
	LDM-304H-XY	0.5-90mm	$\pm 5\mu\text{m}$	1 μm
	LDM-305H-XY	1-180mm	$\pm 10\mu\text{m}$	1 μm
	LDM-306H-XY	2-300mm	$\pm 30\mu\text{m}$	1 μm
SWING TYPE	LDM-303H-SP LDM-703A	0.3-30mm	$\pm 2\mu\text{m}$	0.1 μm
	LDM-304H LDM-704A	0.5-90mm	$\pm 5\mu\text{m}$	1 μm
	LDM-305H LDM-705	1-180mm	$\pm 10\mu\text{m}$	1 μm

CV Diamater



TYPE	MODEL
Masuring Method	Non contact HR-Light Scanning Method
Heater	Heater(HR-Radiator)
Masuring Range	0.10~50.00mm(Max)
Accuracy	$\pm 0.05\text{mm}$
Scanning Direction	Single axis Type
Heater cap.	200W \times 6EA(1.2kw)
IR Current	50~130A(Max)
Input Power	220V $\pm 10\%$ 50/60Hz 1Ph



Lump Neck Down Detector



Series Lump Neck Down Detector



TM-1003W



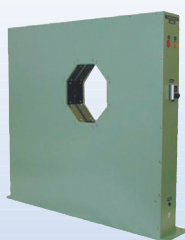
TM-3002W



TM-3004WA



TM-4002



TM-6004

Product Features

- TM-Series lump neck down detectors were designed to monitor surface variations in an object by means of emitting light to the object and detecting a difference of interrupted light volume which is affected by the variation.
- Those TM-Series detectors can be used in production line of all products, such as optical fibers, enamel, vinyl wires, communication and power cables, metal and glass rods, plastic tubes, pipes, hose, etc.
 - Reliable, continuous high speed detection.
 - Applicable for wide range of line speed, from low to high speed.
 - Simple adjustment of detection level by direct reading. Detection of various variations with wide range from 10 micron to more than a few millimeters.

Specifications

Composition	For fine wire/Cable			For middle dia. wire/cable				
Model	TM-1100XY	TM-1003W	TM-1104W	TM-3001W	TM-3002W	TM-3004W	TM-3008W	TM-3016W
Detecting direction	2	3	4	1	2	4	8	16
Measuring range	Ø0.02 ~ 5 mm			Ø0.1 ~ 35 mm				
Detecting sensitivity	0.01 ~ 1 mm			0.5 ~ 10 mm				
Slit length	18 mm	12 mm	18 mm	48 mm				
Slit width	0.5 mm			1 mm				
Line speed	1 m/min ~ 1500 m/min			1 m/min ~ 1500 m/min				
Alarm output	Red LED turns on, Relay contact output. (AC 250V 2A Resistance load)			Red LED turns on, Relay contact output. (AC 250V 2A Resistance load)				
Alarm time	0.5 sec	0.05 sec	5 sec	0.05 sec				
Power supply	AC 100 V 50 / 60 Hz	DC ±15 V	AC 100 V 50 / 60 Hz	AC 100 V 50 / 60 Hz				
Outside dimension	260×265×60	150×140×40	350×280×55	260×90×41	260×260×60	370×335×60	370×335×120	370×335×240
Weight	2.5Kg	1Kg	5Kg	1.5Kg	3Kg	6Kg	12Kg	24Kg

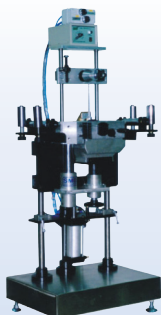
Composition	For Large dia. wire/cable/pipe					For Extra. Large dia. wire/cable/pipe			
Model	TM-4001	TM-4002	TM-4004	TM-4008	TM-4016	TM-6004	TM-6008	TM-7003	TM-7009
Detecting direction	1	2	4	8	16	4	8	3	9
Measuring range	Ø0.1 ~ 60 mm					Ø1 ~ 80 mm		Ø1 ~ 130 mm	
Detecting sensitivity	0.15 ~ 10 mm					0.2 ~ 10 mm			
Slit length	70 mm					90 mm		140 mm	
Slit width	1.5 mm					2 mm			
Line speed	1 m/min ~ 1000 m/min					0.3 m/min ~ 500 m/min			
Alarm output	Yellow or Red LED turns on,(□:Yellow, △:Red) Relay contact output,(AC 250V 2A Resistance load)					Yellow or Red LED turns on,(□:Yellow, △:Red) Relay contact output,(AC 250V 2A Resistance load)			
Alarm time	0.5 sec					0.5 sec			
Power supply	AC 100 V 50 / 60 Hz					AC 100 V 50 / 60 Hz			
Outside dimension	540×160×100	630×560×160	807×674×136	807×674×272	807×680×424	720×660×1153	720×660×306	990×930×1125	990×930×375
Weight	7Kg	25Kg	38Kg	76Kg	152Kg	38Kg	76Kg	40Kg	120Kg



Cable Printer



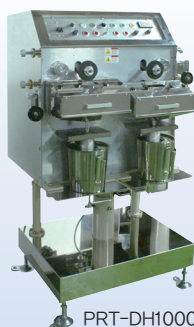
Series Cable Printer



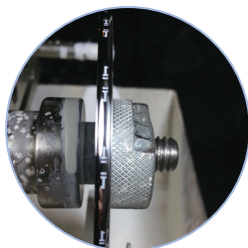
PRT-SL80



PRT-SH500



PRT-DH1000



Printing wheel

Product Features

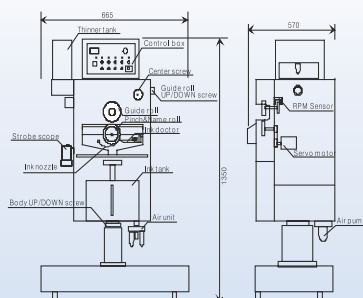
- SMEM printer is an instrument of gravure direct printing which marks company name, product name, size, etc on the cable of PE, PVC, LDPE, TEFLON or the pipes.
- Good for high speed and low speed
 - Servo motor drives the high speed printing roll.
 - It is built-in with adjustment function of the direction to delay.
 - Controlling the position and torque of servo motor enable to print in high speed and high quality.

Specifications

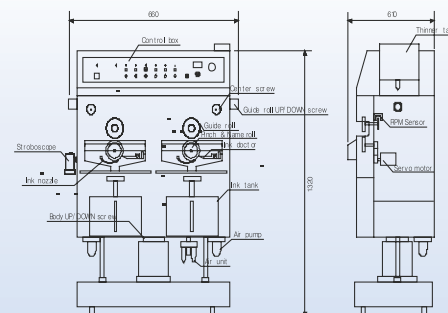
MODEL	PRT -SL35	PRT -DL35	PRT -SL80	PRT-SH 500/1000	PRT-DH 500/1000
Type	Low speed printing			High speed printing	
Applicable(mm)	Ø3~35		Ø10~80	Ø9mm below	
Line speed Max.(m/m)	400		100	500/1000	
Line center(mm)	900~1100				
Print head	1 EA	2EA 1SET	1 EA	1 EA	2EA 1SET
Roll drive	Wire draw			Non Servo/AC Servo motor Control system	
Roll size	Ø100×10mm				
Ink pump	Ink mix roll motor	Gear pump	Ink mix roll motor	Air pump	
The feedback of ink	Fixed			Auto adjustment according to speed	
Pneumatic	3Kbf/cm ² beyond				
Size(mm)	400×1500×600			700×1250×630	745×1430×570
Power supply	220VAC 50/60Hz				

Dimension

• PRT-SH(SINGLE)



• PRT-DH(DUAL)



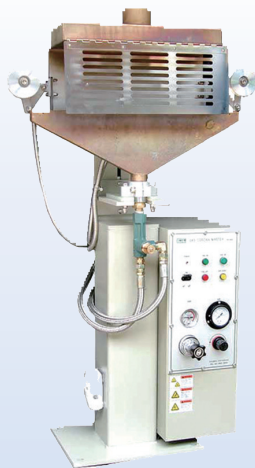
Corona Master



Series Corona Master



CM-300



CM-GAS



Corona Treatment

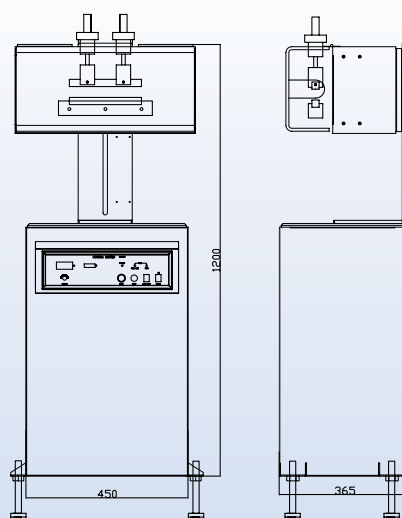
Product Features

- This equipment is composed of the device generating high frequency and electrode unit.
- In electrode, high frequency high voltage generates corona discharge in contact with jacketed copper wire. So the surface of jacket (PE, PVC, TEFLON, HDPE, LDPE) is activated and the adhesion is strengthened in the second progress, stamping.
 - Compact size.
 - Easy to adjust the electrode.
 - High efficiency and with performance by using IGBT.
 - The interlocking device maintains the safety in operation.

Specifications

MODEL	CM-300	CM-GAS
Output frequency	20 ~ 25KHz	Gas flame
Capacity	2 KVA	1000°C
Output voltage	5 ~ 12KV	
Electrode	220mm	260mm Burner
Size	500 1425 620	600 1200 650
Power supply	220VAC 50/60Hz 1Phase	

Dimension



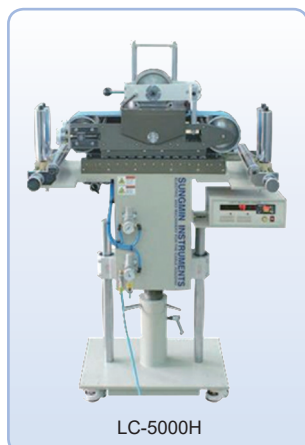
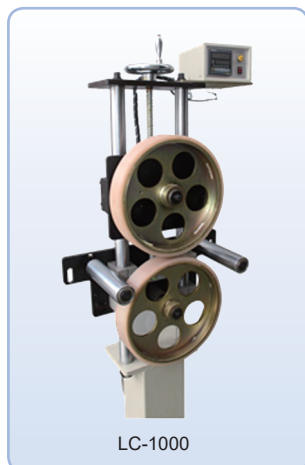
CM-300



Length Measuring Counter



Series Length Measuring Counter



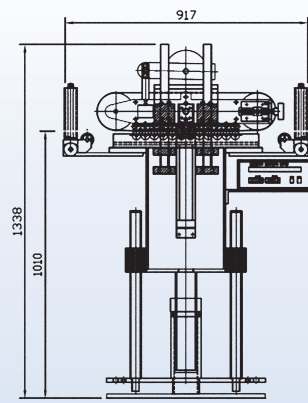
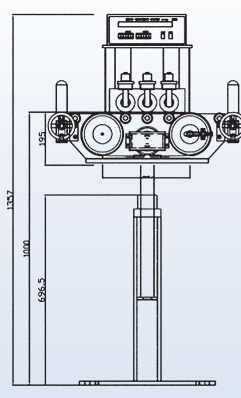
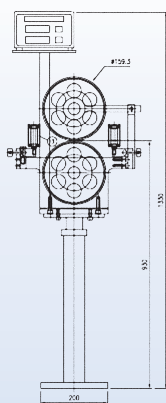
Product Features

- LC-2500 satisfy the cable manufacturers demand of pursuing accurate cable length.
- This tester variously applied to wide speed range and conductor diameter, have belt driving unit and here not any slippage.
- This tester is suitable device for demanding high performance and reliability at cable length measuring parts.

Specifications

MODEL	LC-500	LC-1000	LC-2600H	LC-5000H
Line center	1000±150mm	1000±150mm	1000±160mm	1000
Roller	Urethane/Hard coating		Belt	Belt
Measure	Digital pulse input			
Max.Diameter	Ø0.1~10mm	Ø5~150mm	Ø5~80mm	Ø10~80mm
Max.Line speed	1000mpm	100mpm	100mpm	100mpm
Display	6Digit LED display			
Contact output	2 Preset contact 250V 5A resistive load			
Meter pulse out				
Accuracy	±0.1%		±0.075%	±0.05%
Resolution	0.05%		0.03%	0.02% (1 Pulse 50 μ m)
Power supply	100~240VAC 50/60Hz			

Dimension



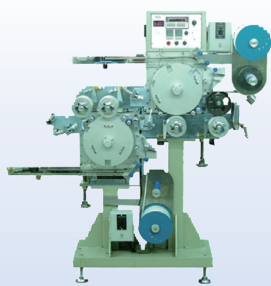
Length Marking Machine



Series Length Marking Machine



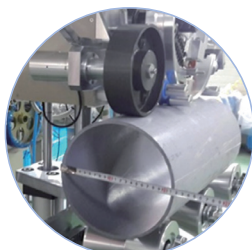
LM-T60



LM-T60(DUAL)



LM-T1000



Available 200Ø

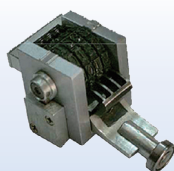
Product Features

- Mark the length, company name, product name, etc on surface of the cables by heated marker.
- LM-T50, LM-T60, LM-T60FT, LM-T100, LM-T1000 is dual type which is composed of one body for meter/feet and there are the belt-measurer unity type performing zero-errors between market and measurer in product line, and meter only and feet only.
- Easy select meter or feet. It has devices for storage and untangling order to protect pulling or cutting of tape in high or low speed.
- Digital electro-gear enable it easy to adjust the length by switch.
- Alarm apparatus for tape cutting.
- Can to print the conditions of producing and the faults of products, diameter, spark, lump, length and time at reset, etc.

Specifications

MODEL	LM-T100	LM-T60	LM-T50	LM-T60FT	LM-T1000
Marking type	Heating and stamp markin type				
Applicable	Product out diameter Ø10~80mm				
Usage	Length mark printing			Feet mark	Meter and feed mark
Line speed	Max, 80mpm		Max, 50mpm	Max, 90fpm	Max, 100mpm
Wheel drive type	AC servo motor control	Torque motor	AC servo motor control		
Tape	White, AL coating tape.				
Length measuring type	Belt counter	500mm wheel counter			
Active outputs	1Pulse/meter open collector out			1Pulse/Feet	1Pulse/meter and feet

Marking Counter Set



Standard Type



Embossing Type

- 1) Type : Meter Counter/Feet Counter/Serial Counter
- 2) Digits : =9999m=, =9999M=, =9999FT, =9999=, (4Digits)/=99999m=, =99999M=, =99999FT, =99999=, (5 Digits)
- 3) Text Size : 2(w) x 2(h)mm - Minimum 10(w) x 6(h)mm - Maximum



Induction Preheater



Series Induction Preheater



IP-200P15

Product Features

- Preheater of SUNGMIN Instruments has wide application range.
 - The conductor should be preheated when the cable wire extruding is processing.
 - For AL strip annealing
 - Before the process of the wire coating for wire-net
 - Attached communication-wire capstan.
- It's very effective to market high quality and productivity though the process of preheating the iron nonferrous-metal.



IP-220P20

Specifications

MODEL	WRE SIZE	TEMP SET RANGE	KVA	PULLEY	MATERIA	LING SPEED
IP-150P2	0,2~0,9mm	299℃	2KVA 50/60Hz	150mm×2	CU	150m/m
IP-180P5	0,5~1mm	299℃	5KVA 50/60Hz	180mm×2	CU	250m/m
IP-200P10	0,5~1,5mm	299℃	0,5KVA 50/60Hz	200mm×2	CU	350m/m
IP-200P15	0,5~1,5mm	299℃	15KVA 50/60Hz	200mm×2	CU	500m/m
IP-220P20	0,5~1,5/3mm	299℃	20KVA 50/60Hz	220mm×2	CU	750m/m
IP-220P30	0,5~1,5/3mm	299℃	30KVA 50/60Hz	220mm×2	CU	1000m/m
IP-300P20	1~5mm	299℃	20KVA 50/60Hz	300mm×2	CU/ST	300m/m
IP-300P30	2~8mm	299℃	30KVA 50/60Hz	300mm×2	CU/ST	500m/m
IP-400P50	3~10mm	299℃	50KVA 50/60Hz	400mm×2	CU/ST	100m/m
IP-600P50	5~15mm	299℃	50KVA 50/60Hz	600mm×2	CU	100m/m
IP-800P50	5~20mm	299℃	50KVA 50/60Hz	800mm×2	CU	60m/m
IP-1000P100	7~25mm	299℃	100KVA 50/60Hz	1000mm×2	CU	60m/m
IP-1200P200	10~40mm	299℃	200KVA 50/60Hz	1200mm×2	CU	60m/m



IP-220P30



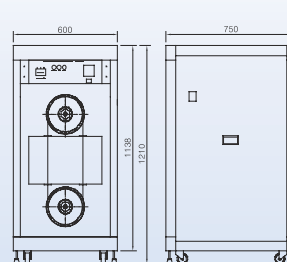
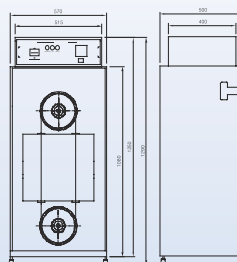
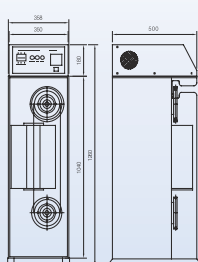
IP-300P30

Dimension

- IP-180P5
- IP-200P10
- IP-200P15

- IP-220P15
- IP-220P20

- IP-220P30





Inverter Preheater



Series Inverter Preheater



HP-220P48



HP-300P48

Product Features

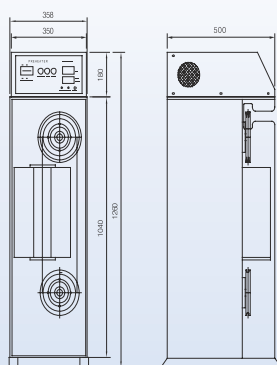
- LC-2500 satisfy the cable manufacturers demand of pursuing accurate cable length.
- This tester variously applied to wide speed range and conductor diameter, have belt driving unit and here not any slippage.
- This tester is suitable device for demanding high performance and reliability at cable length measuring parts.

Specifications

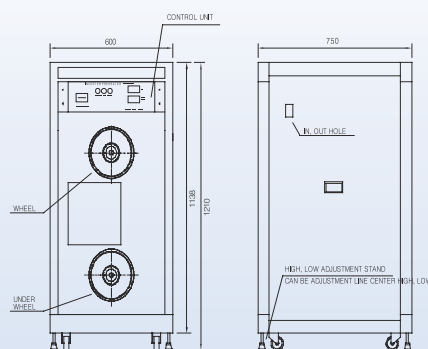
MODEL	HP-120P70CAP	HP-180P24	HP-220P24	HP-220P48	HP-300P48
Pulley	120mm×3150mm×1	HP-180P24	HP-220P24	HP-220P48	HP-300P48
Wire size	STEEL, CU, SOLID, STRAND				
	0.2 ~ 1.5mm		0.5 ~ 3mm		0.8 ~ 4.5mm
Wire temp. Setting range	0 ~ 299℃				
Capacity	220V 25KVA	220V 7KVA	220V 7KVA	220V 15KVA	220V 15KVA
Work frequency	1000Hz				
Remote control	0 ~ 10V DC INPUT				
Capstan motor	Servo motor control				
Work volt	0 ~ 70V	0 ~ 24V	0 ~ 24V	0 ~ 35V	0 ~ 48V
Power supply	220/380VAC, 3Phase, 50/60Hz				
Steel/Line speed(mpm)	Steel/1200	Steel/500	Steel/300	Steel/500	Steel/1000
CU/Line speed(mpm)	CU/2500	CU/1000	CU/700	CU/1000	CU/2000

Dimension

• HP-180P24



• HP-220P24

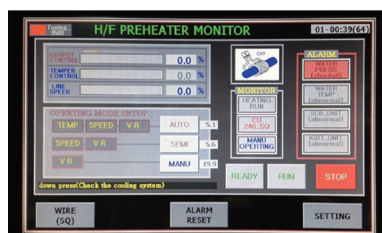




High Frequency Induction Preheater

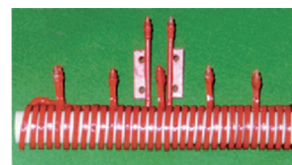


Series High Frequency Induction Preheater



Product Features

- Digital P.I.D Controller for accuracy temperature control
- Various Frequency and Out put selection
- Rapid heating and stable temperature
- Available and stable High temperature heating
- Simple preparation and not consumable products
- Easy, convenient maintenance



Work Coil



Specifications

MODEL	SM-HF75	SM-HF100	SM-HF150	SM-HF200
Type	IGBT type			
Output control	Voltage Control (Power control by S.C.R)			
Temp. control	Digital P.I.D Controller			
Input	85 KVA	110 KVA	170 KVA	230KVA
Out Put	75 KW	100 KW	150 KW	200KW
Frequency	5~10 KHz $\pm 10\%$			
System	<ul style="list-style-type: none"> - TRANSISTER(I.G.B.T)INVERTER(POWER GENERATOR) - H.F CURRENT TRASNFORMER - Water cooling cable / Cooling device - High Frequency Coil 			
Input Power	AC 380V $\pm 10\%$ 60Hz 3Ph.			

Speed Chiller Control



Series Speed Chiller Control



SM-15A

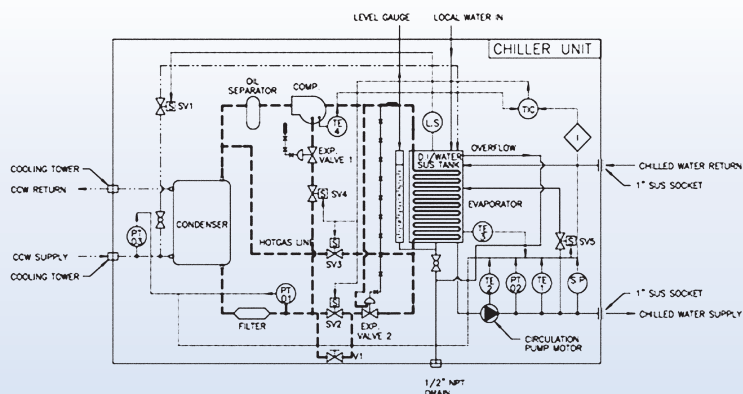
Product Features

- Possible to install in small area.
- When mass storage freezer installed, emit heat of condensation outside. Minimize noise and vibration indoor.
- Possible to use for 4 seasons. When it operated in winter, maintain certain refrigerant and flow.
- SPEED heat exchanger installed

Specifications

MODEL	SM-05A	SM-10A	SM-15A
Compressor rated output(KW)	3.75	7.5	11.25
Pump capacity(KW)	0.75	1.5	1.8
Discharge rate (ℓ /Min)	80	160	200
Cooling capacity (kcal/H)	15,000	30,000	45,000
Refrigerant	Freon-12-22		
Power consumption (KW)	5	9.5	14
Tank cap. (ℓ)	80	160	200
Tank weight (Kg)	1504	400	500
Option spec.	A secondary cable, Pumping fixtures / Precisoion control vaives / Telecomuni cations relay		
Input power	AC220/380V×10% 50/60Hz 3Ø 선택사양		
Size	1100×1430×600	1450×1600×700	1800×1650×700

P&ID(Piping & instrument diagram)





Series Talc Master



Product Features

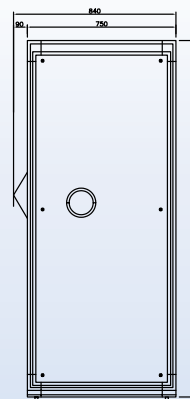
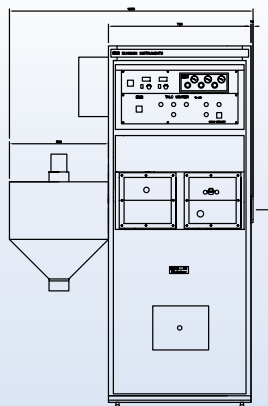
- TALC MASTER is a machine which can make an even application of the talc powder to the core wire for an easy separation from its covering material, when necessary.
- It has some special characteristics in that it can minimize the consumption of the powder
 - It can control the quantity of the powder in proportion to the speed of the wire production. Powder jet spray by a air pressure blower is possible.
 - Quality application of the powder is guaranteed by using the electrostatic collector. There are in use two circulation filter and scattering.

Specifications

MODEL	TM-E40	TM-E70
Type	Electrostatic powder application	
Wire size(mm)	Max. 40	Max. 70
Fault alarm	Blower, electrostatic, powder low	
Talc powder control	Dosage controller	
Center high	950 ~ 1150mm	
Compressor air supply	4Kgf/cm ²	
Scattering check equip	Ring blower	
Heater	1.5KW Plate heater	
Size	750×1850×850	800×1850×1200
Static electricity voltage	0 ~50/90KVDC	
Power supply	220VAC 50/60Hz 1Phase 3KW	

Dimension

- TM-E40



Graphite Master Machine



Series Graphite Master Machine



GM-E200



GM-E260



Polishing Part



Electrostatic Part

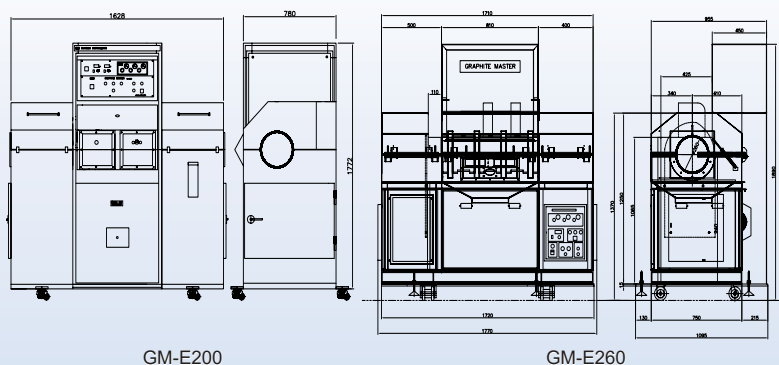
Product Features

- Graphite Master Machine spread graphite uniformly on the surface of cable.
 - USING JET CONTROL: It can control the amount of spreading according to line velocity.
 - Heighten spreading quality using electrostatic method with electrical precipitator
 - Adopt injector spreading method of 2 stage rider structure for spraying graphite.
 - 2 Circulation filter and shatter proof filter are attached

Specifications

MODEL	GM-E200	GM-E260
Type	Static Deposition Method Graphite Spreading All In One	
Wire Size	150mm(Max)	200mm(Max)
Fault Alarm	Blower, Electrostatic, Powder Low	
Center Height	950~1150 mm	
Compressive Air Supply	4Kgf/cm ²	
Powder Anti-scattering device	Circulation & Ring blower	
Heater	1.5KW Plate Heater	
Size	760×1750×1015	
Static Voltage	0~50KVDC Manual Mode	
Power Supply	220V 50/60HZ 1Phase 3KW	

Dimension



GM-E200

GM-E260



AC-DC High Voltage Tester



Series AC-DC High Voltage Tester



0.1 – 10 KVA



25KVA



250KVA



SM-200KV1A

Product Features

- SM High voltage tester is a check and test io the AC, DC voltage resistance quality and warranty instrument.
- We have many kinds from portable to big quantity control panel, voltage regulator, reactor, high volt trans.
 - Compact, simple, convenient design.
 - Safety, standardization, exchangeable.
 - Several kinds model, easy modify

Specifications

5KV	10KV	15KV	20KV	30KV	35KV	40KV	50KV
60KV	70KV	80KV	90KV	100KV	150KV	200KV	250KV

10mA	200mA	1A	2A	5A	10A	20A
30A	40	50A	60A	70A	80A	90A

SM - 10KV□ - 10A

NON	AC High voltage tester
DC	DC High voltage tester

Dimension drawing

Model type	Size(W×H×D)
SM-5KV-10mA	275×165×270
SM-5KV-5A	515×385×490
SM-10KV-10A	600×800×650
SM-60KV-100mA	727×1330×1185
SM-200KV-1A	2325×2173×3626

Multi Spark Tester



Series Multi Spark Tester



LOCAL TESTER



SM-3054ST



SM-3100ST

| Product Features |

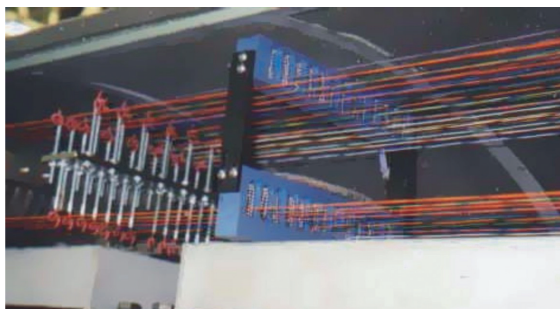
- SM-3100ST, be suitable for communication cable standing machine, is used for detecting pin-hole. Broken wire in front of 100 or 200 pair of standing.
- This tester can check 100 or 200 lines simultaneously and even only one line's defect is detected, alarm and stop the line. After the line stop, can repair the cable with local tester.

| Specifications |

- Voltage meter display : 3 Digits LED 3 0~Model voltage KVDC.
Accuracy $\pm 2\%$ of full scale.
- Fault indication : 4 Digits counter, 104EA LED lamp or 208EA LED.
- Fault resolution : 25Milliseconds.
- Output control : Relay contacts rated at 10amperes. Stop delay counter.
- Input power : 100/220/220VAC 50/60Hz single phase.

MODEL	PAIR SINE	MAX. VOLTAGE
SM-3054ST	54P	3000 VDC
SM-3100ST	104P	3000 VDC
SM-3200ST	208P	3000 VDC
SM-5100ST	104P	5000 VDC
SM-15SD40	1P	15000 VDC
SM-30SD80	1P	30000 VDC
SM-15FLAT	Flat cable	
SM-3100STP	Print data out	

| Detector photo |

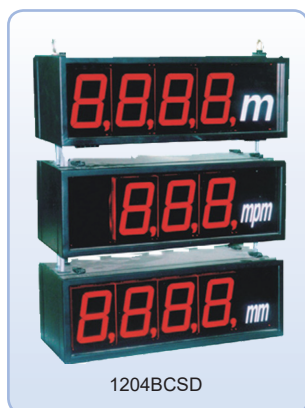




Display Unit



Series Display Unit



1204BCSD



DC-N1505BCSD

Product Features

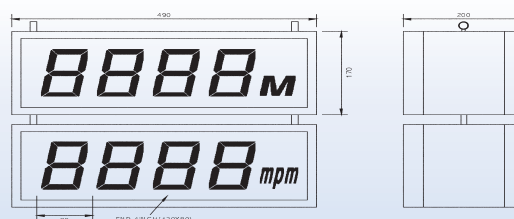
- Display unit is a device for watching the important numbers at even long distance. These numbers are for count, speed, rpm, diameter and temperature etc., which workers have to confirm very often and which are so useful of improving the performance and productivity.
 - High brightness : very bright, distinct and clear at even long distance.
 - Easy to install and connect.
 - Convenient to establish multi-step.
 - Indicator accurate values by electro-communication
 - Adaptation of input/output mode enable to operate HI/LOW input, set, output.

Specifications

MODEL	DISPLAY FUNCTION	INPUT	SIZE (W×H×D)mm	7SEGMENT LED(mm)
DMD-100	Communication display	RS-232C Communication	96×48×113	8×14,1
1204A	4inch 4. One-side, Counter	Open collector, Pulse	490×170×180	60×100
1204B	4inch 4. Two-sides, Counter	Open collector, Pulse	490×170×200	60×100
1204BS	4inch 4. Two-sides, Speed meter	Open collector, Pulse	490×170×200	60×100
1204BT	4inch 4. Two-sides, Temperature	Thermocouple K,J,R,F,T,S,N	490×170×200	60×100
1204BD	4inch 4. Two-sides, Diameter	RS-232C Communication	490×170×200	60×100
1205BR	4inch 4. Two-sides, RPM meter	Open collector, Pulse	490×170×200	60×100
1505A	6inch 5. One-sides, Counter	Open collector, Pulse	780×355×200	80×120
1505B	6inch 4. Two-sides, Counter	Open collector, Pulse	780×355×230	80×120
N1510 BCSD	Count, Speed, Temperature, Diameter, RPM		750×390×470	80×120

Dimension

- 1204B.B S





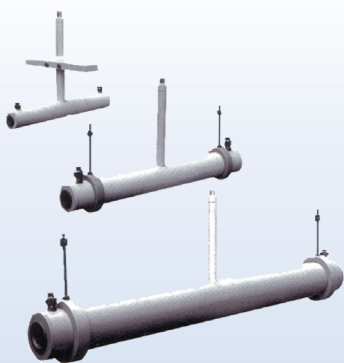
C-Monitor



Series C-Monitor



Control



Output

Product Features

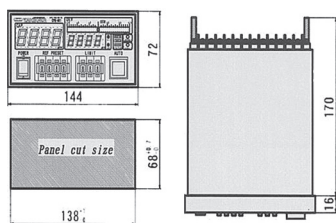
- This monitor can continuously measure capacitance of a covered cable in on-line water bath, which is manufactured by continuous extruding machine.
- Cable capacitance control is available by outputting control voltage.
- Calibration for Cable Capacitance Monitor is available by Calibration Capacitor (Option).

Specifications

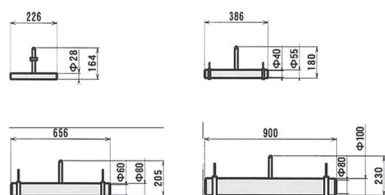
MODEL	CPM-401
Measuring range	0-400pF/m (Expansible by option)
Measuring accuracy	Either larger value of $\pm 0.2\%$ of reading value or $\pm 0.2\text{pF/m}$
Resolution	0.1f/m Sampling time 500 times/sec
Capacitance display	4-digit 7-segment LED (Green)
Deviation display	4-digit 7-segment LED (Red) LED Bargraph, (F.S.=selectable ± 10 or 100pF/m)
Target value setting	4-digit digital switch
High/Low limit setting	3-digit digital switch
Average	Moving average(1 - 5000 times, 1/2/5 steps)
Zero adjustment	Push ZERO switch on front panel and adjust at automatic
Analog output	Output capacitor/deviation(selectable) within $\pm 10\text{VDC}$, Selectable gain, Isolation type.
High/Low limit contact output	Display in Red LED, 1a-contact (AC250V resistance load 2A)
BCD output	Option
External communication	RS-232C interface
Control method	Proportional control
Control output	Max. $\pm 10\text{VDC}$, Isolation type
Line speed	Max. 3000m/min
Power supply	AC100~240V 50/60Hz 10VA
Outside dimension	144*72*191 Weight : Approx. 1.7kg

Dimension

• Controller(CPM-401)



• Detector



• Output

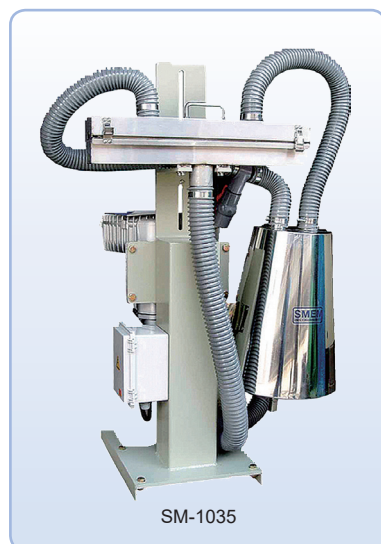
MODEL	Passing hole dia.	Outside dimension
CP-05	5mm	8mm
CP-09	9mm	15mm
CP-15	15mm	30mm
CP-26	26mm	50mm
Water conductivity	1mS/cm or less (It depends on water temperature and dissolved materials. Recommendable to use water with conductivity of 0.5mS/cm or less)	



Suction Wiper / Management System



SM/CT Series Suction Wiper / Management System



Product Features

- For eliminate the water or humidity form the surface of cable, installed front of printing machine.
 - Compact Size, High performance
 - Maximized the effectiveness by optimized air fluid design, same vacuum capa.
 - No noise by optimized Air Circulation design.
 - Top position suction by Air Jet Nozzle.
 - No worn by cable : ceramic coated at surface.
- Water seperation by cyclone : air jet nozzle, water - bottom.

Specifications

MODEL		Suction Wiper
Power		220~240VAC (14A) or 380~440VAC (8A) 3Phase, 50/60Hz
Motor	Max. Vental.	6.1m³/min
	Max. output	5300mmAq
	Regular output	3000mmAq
	Output	3.7Kw
Humidity Control capa.		600mpm (Max.)



Product Features

- In line Continuity Tester is the detecting system for insulation. The various setting and option allow to high quality and the data after production is able to make the warranty and reliability high.

Specifications

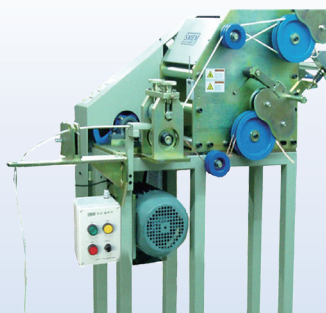
MODEL	Continuity Manager 20 Line	Continuity Manager 1 Line
Power	220VAC 50/60Hz 1phase	220VAC 50/60Hz 1phase
Output	2.5KVDC	2.5KVDC
Max. speed	MAX. 200m/min	MAX. 200m/min
Detect type	Electrode roller type	Bead Chain contact type
Setting	Print interval time Count/Speed/Date Volt. On/Off each line	Cycle time (1 - 99sec) Cycle length (99999m) Output voltage (500 - 2,900V) Count speed (MAX. 500cpm) Pin hole size
Display	- NG Counter - Fault No. each line - Alarm, LED on Fault - Voltage and Ampere	- Pinhole No. target - Pinhole No/1Cycle number - Alarm - LED light on fault



Wire Stripping Machine



Series Wire Stripping Machine



SM-WSM01

Product Features |

- Strip the covering of cable and inner sheath by shape and size. Designed and manufactured for effective working
 - control cutting depth by thickness and stripping equipment part
 - stripping equipment part is installed one place
 - Auto separate the conductor and suction material
 - Easy control, operate and effective work for a long time.
 - Accurate speed control by inverter control
 - Cable disconnect detect and stop function.

Specifications |

MODEL	SM-WSM01	SM-WSM02	SM-WSM03	SM-WSM05
TYPE	Small	Medium	Medium/ Large	Large
Speed Control	Inverter control			-
Material	PVC			PVC,
Senctional Area	0,5 ~ 1,25	2 ~ 5	3 ~ 8	① High tension wire 5~100 ② Thin wire 2~13fl ③ Communication cable and cover surrouned by 2,3,4 internal cutting
Conductor diameter	1,0 ~ 1,5	1,8 ~ 3,0	2,4 ~ 3,7	
Insulation external diameter	1,5 ~ 2,2	2,7 ~ 4,3	2,7 ~ 5,8	
Disconnect detect	Close SENSOR			
KNIFE	69×2EA 68,5 ×1EA	68,5×1EA 68×2EA	68×2EA 6,75×1EA	
Power	AC220V 50/60Hz 3Phase			
Size	600×1760×200			900×1200×580



SM-WSM05



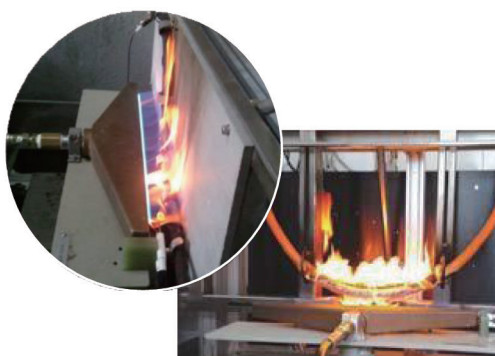
Multi Fire Resistance Tester



Series Multi Fire Resistance Tester

Model : SM-600
 Standards : BS, IEC
 High volt. : 600, 1000V
 Test current : 0.25A
 Fuse : 2A / 3A
 Sensor : Type-K temp. sensor
 Air/Gas flowmeter Timer

Fire resistance tester with water, shock
 BS 6387
 BS 7846
 BS 7346-1:2005
 BS 8491 F30/60/120
 BS 50200



Fire resistance tester
 BS 6387
 IEC 60331
 BS 78460
 BS 50200



Fire resistance tester with water
 BS 6387
 BS 7846



Cable Fire Testers



Series Cable Fire Testers



Vertical Flame Resistance Tester IEEE 1202



Fire Resistance Tester
IEC 60332-1

Vertical Flame
Resistance Tester
IEC 60331-3-10
IEC 60331-3-22



Cable Gas Tester
IEC 60754-1
IEC 60754-2



BS 50399
IEC 60331-3-10
IEC 60331-3-22



Oxygen Index Tester
ISO 4589-2



Smoke Density Tester
IEC 61034

Sungmin Instruments has manufactured various Fire Resistance Tester such as IEEE1202, Vertical Flame Resistance Tetser, etc. to the major cable manufacturers over last the 10 years. On the basis of the experience and the steady development of technique, Sungmin Instruments as specialized in FIRE TEST will take the head in manufacturing FIRE TEST MACHINE

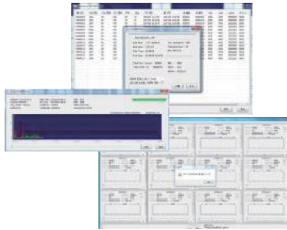


Enamel Pinhole Detect System

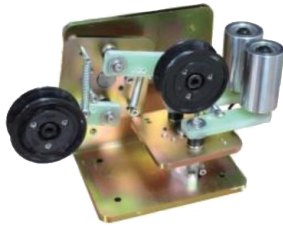


Series Enamel Pinhole Detect System

Inline continuity management system



Data Label Printer



Sheave Roller



Touch Control unit



Data Label Printer

- Control type: Touch screen control
- Output volt./ampere: DC 350 ~ 3,000 -> 8 point setting
- 5 ~ 16 uA -> auto setting
- Function/display: Time and running time / The total length setting and display the length of section Set Fault / Fault section graph / ENX(fault section no.) ENM(fault sector) ENMM(fault length)
- Touch screen program control makes check/manage efficient and easy
- It is effective to manage the fault section as displaying graph
- Available sort each item like fault number, most fault sector, length of fault
- The way of detecting is designed to accord with NEMA SPEC
- The management with PC Program is allowed to store and edit data easily and efficiently

Enamel Pinhole Detect System



Series Enamel Lump Detect System Inline Surface Management System

Detect type : Non-contact type
double / triple axes
Apply diameter : $\varnothing 0.02 \sim 30\text{mm}$
Detect range : $0.01 \sim 9.99\text{mm}$
Alarm time : 0.05sec

Touch screen

Printing fault count / date / time for each line
Display the graph for each line Alarm unit
Available external storage memory



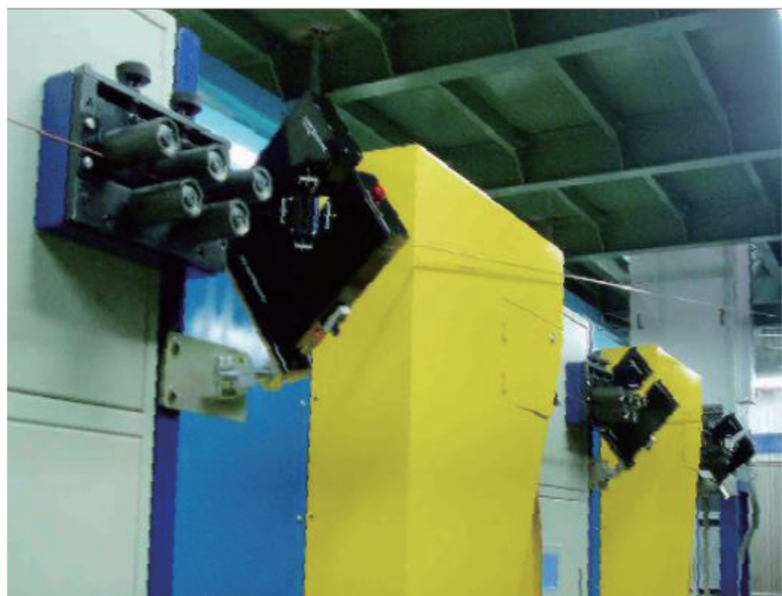
LD-053C



LD-302C



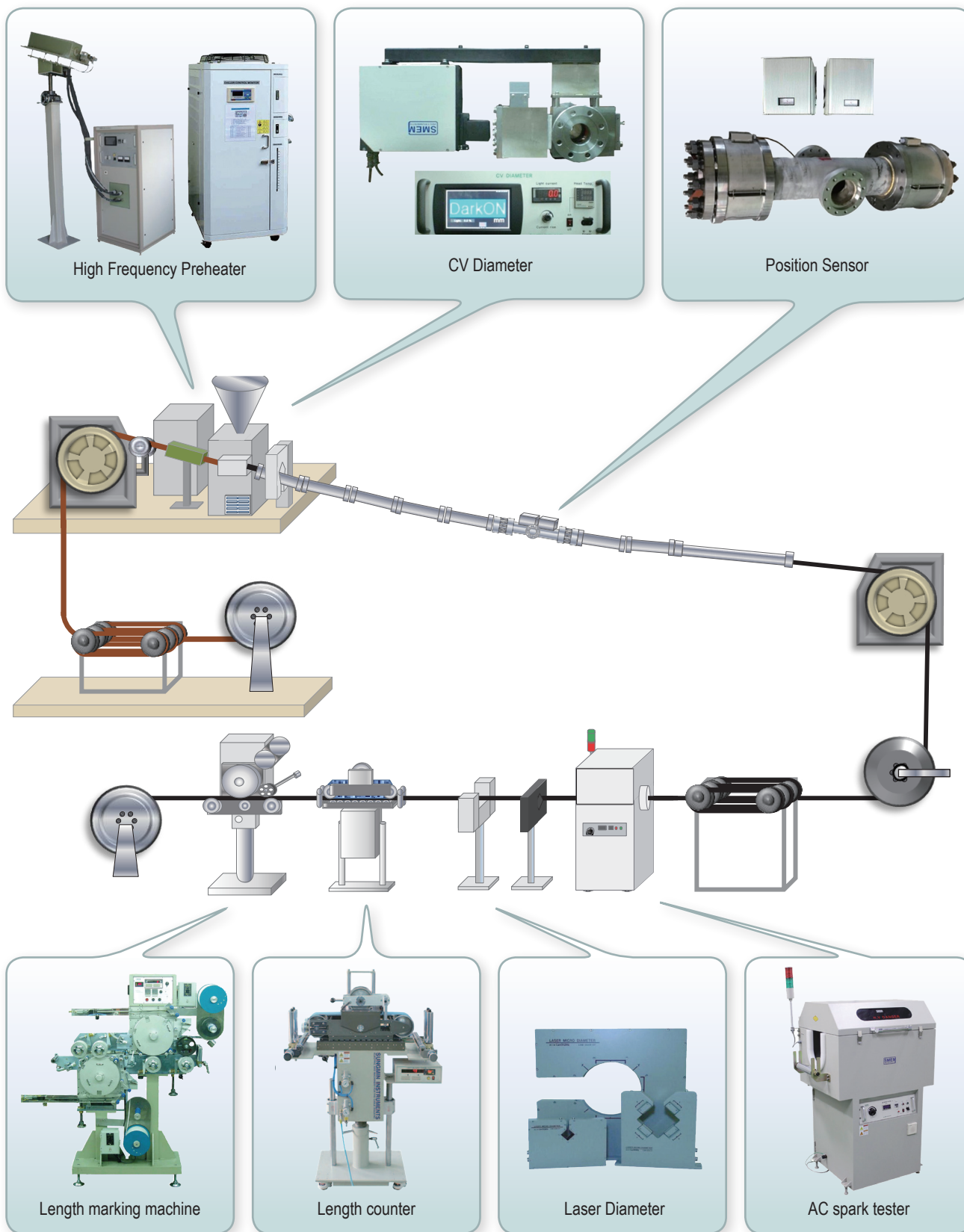
Touch control program



Installation

CCV LINE

CV LINE CONCEPTION DIAGRAM



Main products group of SungMin Instruments

| Test & quality check |

- **High Frequency Spark Tester (SM-HF Series)**
High frequency sine wave spark tester, SM-15HF, accomplish considerable reliability in spite of high speed wire or very small defect.
- **AC 50/60Hz Spark Tester (SM-ST Series)**
This tester is general device that detect the insulation defect at cable manufacturing process.
When the defect point(bare wire, pin-hole dust, scar)pass trough the tester. it can find out insulation defect point.
- **AC-DC High Voltage Tester (SM-PT, ADT, DPT Series)**
Test equipment for development and quality assurance in cable industry
- **Multi Spark Tester (SM-ST Series)**
SM-3100ST, be suitable for communication cable standing machine, is used for detecting pin-hole. Broken wire in front of 100 or 200 pair of standing. This tester can check 100 or 200 lines Simultaneously and even only one line's defect is detected. alarm and stop line. After the line stop. Can repair the cable with local tester.
- **Break Down Voltage Tester For Magnet Wire (SM-BDV)**
Checking the break the down voltage of enamel wire and then testing insulating capacity.
- **Continuity Tester (HD,CT2500)**
Check the enamel wire wrapping stability or tubing by DC high voltage based on NEMA spec.(MW 1000 PART 3-3.8)
- **In Line Continuity Tester (ICT Series)**
In line continuity tester detects the scrap on insulated enamel wire. It is simultaneously testing several lines on in line condition against general testing method which is sampling pin-hole test it can prevent unknown produced scrap and guarantee the quality. Also it can meant the NEMA spec.
- **Arrester Tester (SM-ART Series)**
Check the arrest
- **Cable Endurance Tester (SM-ECT410-50)**
Test the U band the standard test IEC60227 follow the SHOWA, DAIDEN
- **Corona Master (CM Series)**
This equipment is composed of the device generating high frequency and electrode unit.
In electrode, high frequency high voltage generates corona discharge in contact with jacketed copper wire. So the surface of jacket(PE, PVC, TEFLON, HDPE, LDPE) is activated and the adhesion is strengthened in the second progress, stamping.
- **Tensile Testing Tester (SM-652 Series)**
- **Twisting Endurance Tester (SM-216 Series)**
Check and measure the all kinds of wire's twist for the piano wire and steel wire.
- **Sen Tester (SM-SEN Series)**
Check the enamel flexibility.
- **Spring Back Tester (SBT Series)**
We have two Kinds manual and auto type.
- **DC High Volt / Megohm Meter (MD,SM-40DPT04ME)**
- **AC High Current Tester (CT Series)**

| Preheater |

- **Inverter Preheater (HP-P Series) / Induction Preheater (IP-P Series)**
 - ▷ Preheater of SUNGMIN Instruments has wide application range.
 - The conductor should be preheated when the cable wire extruding is processing.
 - For AL strip annealing.
 - Before the process of the wire coating for wire-net
 - Attached communication-wire capstan.
 - ▷ It's very effective to marker high quality and productivity though the process of preheating the iron or nonferrous-metal.

| Measurement & Scale |

- **Length Measuring Counter (LC Series)**
 - LC-2500 satisfy the cable manufactures demand of pursuing accurate cable length.
 - This tester variously applied to wide speed range and conductor diameter, have belt driving unit and here not any slippage.
 - This tester is suitable device for demanding high performance and reliability at cable length measuring parts.
- **Laser Micrometer (LDM Series)**
 - Long life semiconductor laser lasting up to 100,000 hours equipped.
 - A high precision Flens allows high linearity.
 - Very small measuring error if object is vibrating.
 - No influence to the measured value by ambient light such as the sunlight, etc.
 - Available to measure opaque/transparent object such as glass, plastic, etc.
 - Maintenance free, calibration free.
- **Wire Temperature**
Check the current temperature of wire.
- **Milli Ohm Meter**
Check the resistance.
- **Portable Wheatstone Bridge (SM-350)**

| Printing |

- **Tape Length Marking Machines (LM-T Series)**
In extruding line. This equipment stamps length, company name, product name, etc on surface of the cables by heated marker.
- **Cable Printer (PRT Series)**
SMEM printer is an instrument of gravure direct printing which marks company name, product name, size, etc on the cable of PE, PVC, LDPE, TEFLON or the pipe.
it is for high speed and low speed.

| Other |

- **Joint Detector (ID Series)**
Check the welding point or short the cable at extrusion process.
- **Surface Variation Detector/Lump Detector (TM/LD Series)**
We have two kinds touch and non touch type. This is a detect the surface of cable or wire lump. burr etc.
- **Talc Master (TM-E Series)**
Talc Master is a machine which can make an even application of the talc powder to the core wire for an easy separation from it's covering material. when necessary.
- **Display unit (DMD-100, 1204, 1205, 1505 Series)**
Disply unit is a device for watching the important numbers at even long distance. These numbers are for count. speed, rpm, diameter and temperature etc. which workers have to confirm very often and which are so useful of improving the performance and productivity.
- **Suction Wiper**
Eliminate the cable surface humidity located the cooing tank back side or in front of the printer.
- **Traverse Pitch Controller (TPC Series)**
Pitch control center for the cable and wire arrange by AC servo motor.
- **But Welding Machines (SM-BW Series)**
- **Memory Counter Printer (MC Series)**
Display the detected error data which is connected the instruments of diameter.
Lump detector, Spark tester, etc.
The displayed data are test voltage, error point, error time, etc.
- **Sprayer**
These instruments mark to cable/wire/pipe by elastic rubber or ink from spray at the time when alarm signal is received.
At present, elastoring marker is in patent application at home and abroad.

- SPARK TESTER
- LASER MICROMETER
- AC / DC HIGH VOLT TESTER
- LENGTH COUNTER
- INVERTER/INDUCTION PREHEATER



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