

**GK innovation, inc.**

*Innovation for society and future.*

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# Company Introduction

GK Innovation, Inc. builds a concrete integrated management system to provide high end quality products and services through innovative milestones, setting a high standard procedures to become the global leader of wire harness manufacturing in the industry.



## **Solution**

Through our continues innovation we create new opportunities through diverse and systematic approach.



## **Quality Management System**


We provide products and services with high quality standard and we aim to exceeds customers needs and expectation.



## **Innovation**

GK Innovation, Inc. is proud to be an innovator with high standard. We will assist the industry forward with application of cutting-edge technologies with creative innovation.





**GK Innovation, Inc.** is a company specializing  
in **WIRE HARNESS MANUFACTURING** for  
automotive and consumer **ELECTRONIC** products  
for the global market.

# MISSION & VISION

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**GK Innovation, Inc.** is committed to establish a name in the field of wire harness that will be a symbol of **QUALITY** and **RELIABILITY** by focusing on the principles that matter most: **Continuous DEVELOPMENT, INTEGRATION** and **INNOVATION**.

We at GK Innovation, Inc. are devoted to core quality practice and optimize processes to manufacture and deliver with zero defect products to customer while creating an open culture within the organization which cultivates **TRUST** and **GROWTH**.



# CORE VALUES

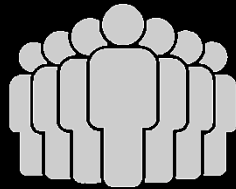
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## Excellence



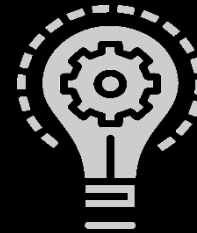
We at GK Innovation, Inc. is on continuous pursuance to attain products and services with Globally Competitive and High Quality Standard.

## People



We at GK Innovation Inc. believes, trust, nurture and train people, to develop skills and talents to create a diverse and ethical workforce and environment.

## Innovation



We at GK Innovation, Inc. accept that the only constant thing is change, we aim to improve our system to provide the most efficient and effective product and services to our valued customers.

## Customer



We at GK Innovation, Inc. aims to have the same mindset and ownership as our customer to give emphasis on providing their needs through collaboration and consultation.

# PARTNERS





# QUALITY POLICY

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We, at GK Innovation, Inc., global manufacturer of wire harness for automotive and electronic assembly are committed to ensure that we exceed the expectations of our customers and end users through implementation of Quality Management System.

We, at GK Innovation, Inc. is committed to promote honesty, integrity and transparency within the organization in order to create a culture of righteousness which commit ourselves to comply to all applicable regulatory and legal requirements.

We, at GK Innovation, Inc. are committed to provide a framework for setting quality objectives to enhance quality performance.

We, at GK Innovation, Inc. are committed to continually improve the Quality Management System for the welfare of the organization, employees, customers, and the nation as a whole.





# ENVIRONMENTAL, HEALTH AND SAFETY POLICY

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GK Innovation, Inc., is committed to environmental pollution prevention, as well as enabling all work activities to be carried out safely and with possible measures taken to remove or at least reduce risks to the health, safety and welfare of workers, sub-contractors, authorized visitors and anyone else who may be affected by our operations; enhance employees' participation in environmental-friendly corporate social activities.

To protect our employees, the environment and our property, GK Innovation, Inc. is committed to provide a safe and healthy working environment; continuous improvement in minimizing our environmental impacts, preventing pollution and limiting depletion of natural resources; and reduction of risks at our facility.

Each member of our organization is responsible for environmental, health and safety compliance and will be held accountable for their actions.

The Environmental, Health and Safety Management System established by this policy shall:

- Comply with all applicable legislations, other statutory and regulatory requirements
- Continually improve our management systems to further improve our environmental, health and safety performance.
- Reduce Environmental Impact of our activities, products and services by striving to reduce waste, eliminate hazardous materials, and responsibly managing water and energy use.
- Establish a healthy, safe and accident-free workplace and motivate all employees to take personal accountability to protect the environment.
- Promote environmental global concern and other peoples welfare thru engaging in corporate social responsibility activities.

To achieve these, GK Innovation, Inc. will engage its employees and allocate adequate resources for continual improvement in its Environmental, Health & Safety performance.

This policy shall centrally maintained, regularly reviewed and update as necessary to reflect changing needs and goals of GK Innovation, Inc., and shall formally communicated and explained to all associates and made available to the public.

# ESTABLISHMENT & CERTIFICATIONS



**Company Name:**  
**GK INNOVATION, INC.**



**Establishment Date:**  
**18 MARCH 2019**



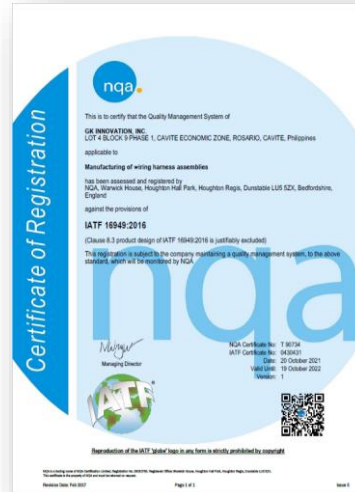
**President / CEO:**  
**Mr. SUL YOON**



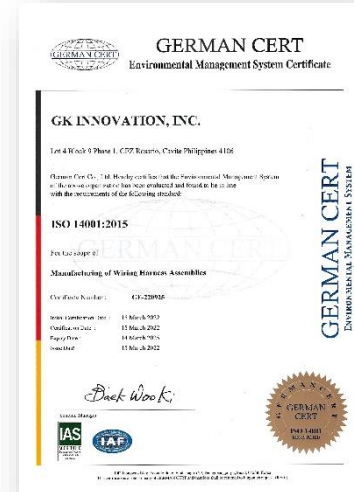
**Chief Operations Leader**  
**Ms. KATHLEEN RIVERA**



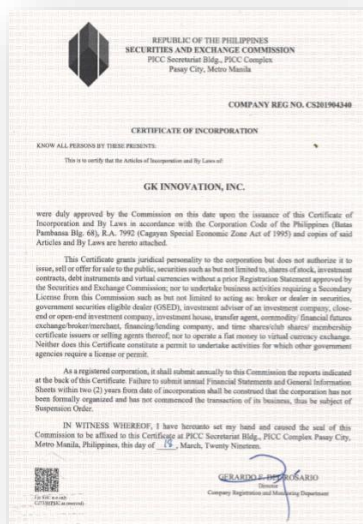
**Industry:**  
**WIRE HARNESS AND  
ELECTRONIC ASSEMBLY  
MANUFACTURING**



**IATF 16949: 2016**  
**NQA Global Certification Body**



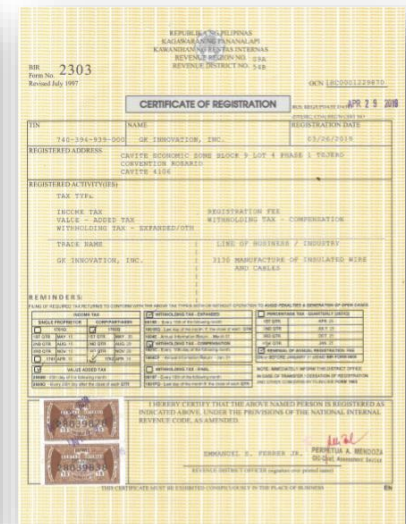
**ISO 14001: 2015**  
**German Cert**



**Securities and Exchange Commission**  
**Certificate of Incorporation**



**Philippine Economic Zone Authority**  
**Certificate of Registration**



**Bureau of Internal Revenue**  
**Certificate of Registration**



# COMPANY STRUCTURE



# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Head Lamp Wire Harness




AD FL HL  
FOG L LAMP








Vehicle Name : Hyundai Avante  
Product Name :  
**AD FL HL EXTN STD LH WIRE**  
Installation Name : Head Lamp














Vehicle Name : Hyundai Avante  
Product Name : AD FL  
HIGH&S/LOW EXTN RH WIRE  
Installation Name : Head Lamp










Vehicle Name : Hyundai Avante  
Product Name :  
**AD FL HIGH&S/LOW EXTN LH WIRE**  
Installation Name : Head Lamp









Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL OPT  
M-LOW DOM  
Installation Name : Head Lamp



# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Head Lamp Wire Harness






Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL OPT  
M-LOW DOM  
Installation Name : Head Lamp






Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL STD  
LED PSTN DOM&EC LH  
Installation Name : Head Lamp






Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL OPT  
HIGH&LOW EXTN LH  
Installation Name : Head Lamp






Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL STD  
DOM &EC LH  
Installation Name : Head Lamp



# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.


## Head Lamp Wire Harness










Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL OPT  
M-LOW NAS  
Installation Name : Head Lamp







Vehicle Name : Hyundai Avante  
Product Name : AD FL HL STD2  
DOM LD LH WIRE  
Installation Name : Head Lamp







Vehicle Name : Hyundai Tucson  
Product Name : TL FL HL STD  
LED PSTN DOM&EC RH  
Installation Name : Head Lamp







Vehicle Name : Hyundai Avante  
Product Name : AD FL HL STD1  
DOM LD LH WIRE  
Installation Name : Head Lamp

# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Head Lamp Wire Harness



 Vehicle Name : Hyundai Avante  
Product Name : AD FL HL STD1  
DOM LD RH WIRE  
Installation Name : Head Lamp



 Vehicle Name : Hyundai Avante  
Product Name : AD FL HL STD2  
DOM LD RH WIRE  
Installation Name : Head Lamp

# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Rear Lamp Wire Harness




 Vehicle Name : Kia Soul  
Product Name : SK3 RC OS OPT  
DOM&EC  
Installation Name : Rear Lamp



 Vehicle Name : Kia Soul  
Product Name : SK3 RC IS STD  
EXTN RH  
Installation Name : Rear Lamp



 Vehicle Name : Kia Soul  
Product Name : SK3 RC IS OPT  
Installation Name : Rear Lamp



 Vehicle Name : Kia Soul  
Product Name : SK3 RC OS OPT  
NAS  
Installation Name : Rear Lamp






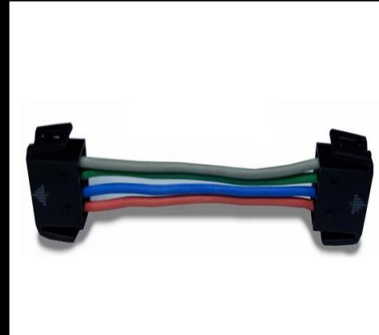
# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Rear Lamp Wire Harness




 Vehicle Name : Hyundai Santa Fe  
Product Name : TM R/FOG  
DOM&NAS B/WIRE  
Installation Name : Rear Lamp



 Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC IS DOM  
TAIL LH WIRE  
Installation Name : Rear Lamp



 Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC OS DOM  
TAIL RH WIRE  
Installation Name : Rear Lamp




 Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC OS DOM  
WIRE  
Installation Name : Rear Lamp






# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Rear Lamp Wire Harness






  





Vehicle Name : Kia Soul  
Product Name : SK3 RC OS STD  
DOM&EC  
Installation Name : Rear Lamp






  




Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC IS OPT  
B/WIRE  
Installation Name : Rear Lamp





Vehicle Name : Kia Soul  
Product Name :  
SK3 RC OS STD NAS B/WIRE  
Installation Name : Rear lamp









Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC IS STD  
B/WIRE  
Installation Name : Rear Lamp


# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.


## Rear Lamp Wire Harness







Vehicle Name : Kia Soul  
Product Name : SK3 RC IS STD  
EXTN LH  
Installation Name : Rear Lamp







Vehicle Name : Hyundai Santa Fe  
Product Name : TM R/FOG EC  
B/WIRE  
Installation Name : Rear Lamp





  




Vehicle Name : Hyundai Santa Fe  
Product Name : TM R/FOG EC  
B/WIRE  
Installation Name : Rear Lamp



Vehicle Name : Hyundai Santa Fe  
Product Name : TM RC IS STD  
B/WIRE  
Installation Name : Rear Lamp

# PRODUCTS

Products are carefully manufactured complying to the highest quality standard on the most effective and efficient way.

## Fog Lamp Wire Harness







Vehicle Name : Hyundai Tucson  
Product Name : TL FL FOG&  
DRL  
Installation Name : Fog Lamp







Vehicle Name : Hyundai Tucson  
Product Name : TL FL FOG  
&DRL EXTN  
Installation Name : Fog Lamp







Vehicle Name : Hyundai Tucson  
Product Name : TL FL ONLY  
DRL EXTN  
Installation Name : Fog Lamp



# DEVELOPMENT PROCESS

1

## Customer Request/ Discussion

Discussion with customer regarding material, processing standards and reliability requirements.

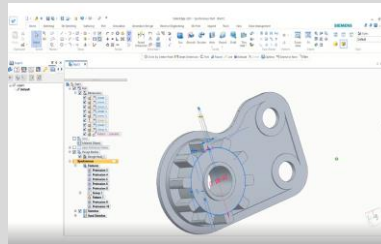


Checklist	Review the client's request
Standard	Customer Request
Base data	Customer Standard for Material and Processing Reliability Requirements

2

## Manufacturing Design

Review and verification of circuits, optimization of material specifications.



Checklist	Customer Specification Requirement
Standard	Auto CAD 2D Solid Edge 3D
Base data	Material Configuration Settings

3

## Sample Production and Review

Manufacturing design review and sample production and review.



Checklist	Failure Mode and Affect Analysis
Standard	Design Review
Base data	Sample Manufacturing Standards Manufacturing Drawing Standards

4

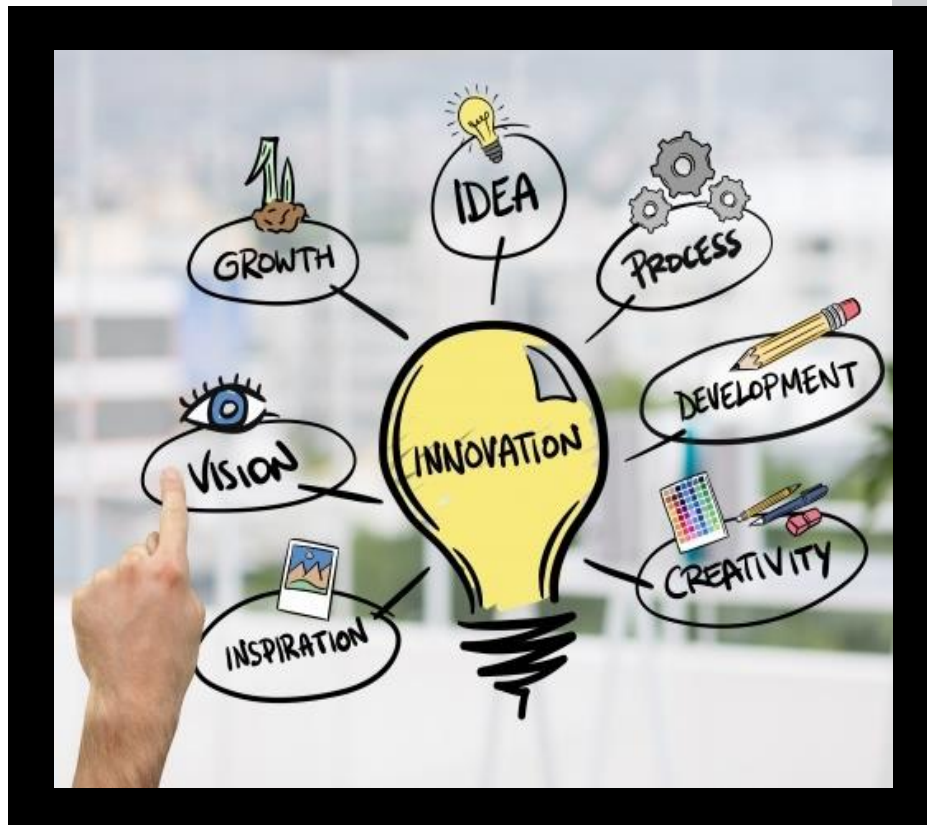
## Development Process Management

Compliance to Advanced Product Quality Planning



Checklist	Circuits, Size, Period
Standard	Manufacturing Drawing; Advanced Product Quality Planning
Base data	Match manufacturing drawing and the finished product

# MANUFACTURING PROCESS



Through meticulous and reliable work, we devoted ourselves to embrace our core quality practice and have established layered system that works as gears for us to achieve **ZERO DEFECT** processing and bring definite **CUSTOMER SATISFACTION**.

Our Synergy creates an open culture within the organization which cultivates **TRUST** and **GROWTH**.

# MANUFACTURING PROCESS

01

## Incoming Quality Inspection \*



**CHECKLIST** Material Specification Requirement

**STANDARD** 1 time / delivery

**BASE DATA** Incoming Inspection Report  
IQC Work Instructions  
Visual Inspection  
Instructions – Raw Materials

\* 5 Stages Inspection

02

## Automatic cutting, stripping, seal insertion & crimping



**CHECKLIST** Cutting, Strip Length, Crimp

**STANDARD** 3 times (beginning, middle, end)/ lot

**BASE DATA** Cut Sheet  
Job Order  
Standard Operating Procedure

03

## Middle strip peeling



**CHECKLIST** Middle Strip Insulation Peeling

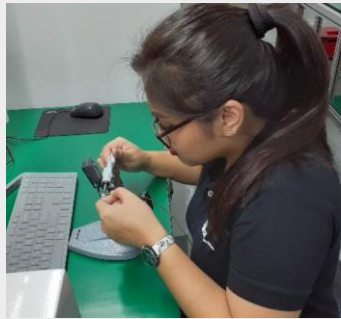
**STANDARD** 3 times (beginning, middle, end)/ lot; lot test

**BASE DATA** Cut Sheet  
Job Order  
Standard Operating Procedure

# MANUFACTURING PROCESS

04

## In-Process Inspection \*



**CHECKLIST** Crimp Appearance, Tensile Force, Compression & Void Rate

**STANDARD** 3 times (beginning, middle, end)/ lot

**BASE DATA** Cut Sheet  
Work Instructions  
Compression Reliability Check

\* 5 Stages Inspection

05

## Assembly



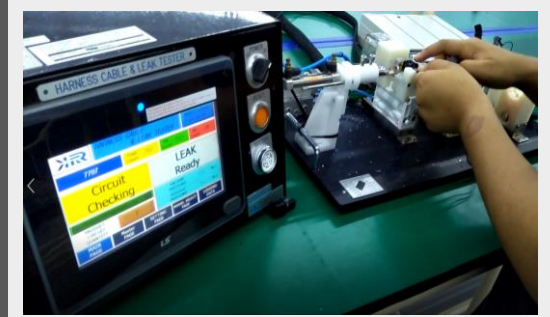
**CHECKLIST** Product Specification Requirement

**STANDARD** total/ lot; 1 time/ 1 day

**BASE DATA** Job summary  
Traveler Card  
Manufacturing Circuit Diagram  
Standard Operating Procedure for product assembly

06

## Circuit test \*



**CHECKLIST** Functionality (continuity, schematic, leakage)

**STANDARD** 100% on all units

**BASE DATA** Manufacturing Circuit Test Manual

Daily Circuit Test Check Sheet

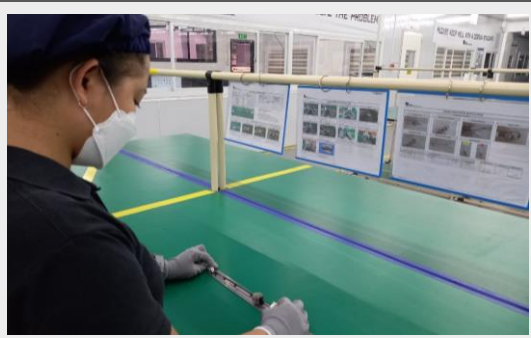
\* 5 Stages Inspection



# MANUFACTURING PROCESS

07

## Final Visual inspection \*



**CHECKLIST** Visual and Mechanical Requirement

**STANDARD** 100% all units

**BASE DATA** Visual Inspection Instruction  
Traveler Card  
Daily Work Summary

\* 5 Stages Inspection

08

## Outgoing Quality Inspection \*



**CHECKLIST** Visual and Mechanical Requirement

**STANDARD** total/ lot

**BASE DATA** Visual Inspection Instruction  
Outgoing Inspection Lists

\* 5 Stages Inspection

09

## Shipment Preparation



**CHECKLIST** Job Order Quantity  
Product Description

**STANDARD** total/ lot

**BASE DATA** Packing List  
Invoice

# RELIABILITY TEST

The Reliability tests are conducted for selection and improvement on reliability of products for respective stages. Also, the **tests are focused to verify the reliability of products throughout from the product planning stage to the actual use after delivery for securing the stable quality within the intended period.**

01

## Tension Testing Machine



The test is conducted to see whether the connection state of the solderless terminal maintains the standard measurement level.

**Brand:** TESKO (Nanotech)  
**Specs:** 1 kN

02

## Measuring Microscope

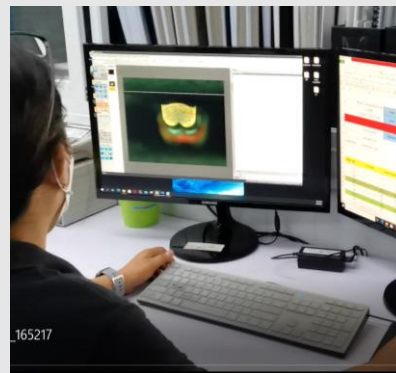


To check compression area of terminal and conductor combination. Also used to measure product and material dimension on compliance to standard

**Brand:** Nikon  
**Specs:** 0mm - 100mm

03

## Compressibility Test



To check and compute compression rate of product to comply with set compression standard.

**Brand:** Leopard  
**Specs:** Software

04

## Voltage Drop Tester for Wire Harness



Changes in voltage within the parts are checked after contact to environmental exposure.

**Brand:** KAST Engineering Co., Ltd.  
**Specs:** Maximum 20V

# RELIABILITY TEST

05

## Underwater Voltage Test



To check Splice joint insulation reliability under water

**Brand:** TESKO (Kikusui)  
**Specs:** Maximum 500V(0.5kV)

06

## Thermal Shock Test



To evaluate the resistance of the parts on sudden temperature change. Starting from room temperature, the product is exposed to very low temperature (or very high temperature) for specific number of times and the process of exposure to very high temperature (or very low temperature) within a short period of time.

**Brand:** TESKO (SAMWON TECH)  
**Specs** High Zone: Rt ~ 150 °C  
Low Zone : -70°C ~ 0°C

07

## Isothermal-humidity Test



Various parts and modules are applied with electrical shock in room temperature and high/low humidity environments to test the durability and reliability.

**Brand:** TESKO (NEXCON)  
**Specs:** -40°C up to +150°C

08

## Circuit Test Machine



A electro mechanical device use to check correct schematic, connection and vacuum capability of a wire harness assembly. Capable of detecting short circuit, wrong connections and intermittent connections. its pneumatic features allows to screen defective seals through vacuum process.

**Brand:** C.I.S  
**Specs:** up to 60 connections;  
vacuum 5 bars

# EQUIPMENT: MANUFACTURING



**Machine:** Fully Automatic Crimping

**Brand:** Japan Automatic Machine Co., Ltd.

**Machine Process:**

Fully Automatic Crimping Machines that are used for processing of wires with stripping, crimping, seal insertion and auxiliary processes, making the wires ready for harness assembly.



**Machine:** Semi-Automatic Crimping

**Brand:** Japan Automatic Machine Co., Ltd.

**Machine Process:**

Crimping is joining two or more pieces of metal or other ductile material (wire(s) & terminal) by deforming one or both of them to hold the other. The bend or deformity is called the crimp.



**Machine:** Automatic Wire Cutting

**Brand:** KM Digitech

**Machine Process:**

Automatic wire cutting and stripping, able to process 5 wires at once and has automatic wire gauge detection for set-up.



**Machine:** Automatic Wire Stripping

**Brand:** Schleuniger

**Machine Process:**

Programmable stripping machine strips wires. This innovative machine does not require any mechanical adjustments to process different wire sizes.

# EQUIPMENT: MANUFACTURING



**Machine:** Middle Strip

**Brand:** KM Digitech

**Machine Process:**

The process is almost the same for stripping but only difference is that the machine is particularly designed to remove middle/ in-between insulation of a wire.



**Machine:** Tube Cutting

**Brand:** KM Digitech

**Machine Process:**

This cutting machine is design with a user friendly panel, it is suitable to tube cutting for shrink tubing, PVC tubing, etc.



**Machine:** Resin Tube heater (High Temp.)

**Brand:** Shinan Auto Tech

**Machine Process:**

Use to properly shrink resin tube for splice additional insulation, using temperature regulated heating filament within a conveyor chamber that moves and evenly heat wire and resin tube for better insulation.



**Machine:** Shrinkable Tube heater (Low temp.)

**Brand:** GGM GUA Series

**Machine Process:**

Use to properly shrink tube for splice additional insulation, using temperature regulated heating filament within a conveyor and air fan regulator, to evenly disperse heat within the semi open chamber.



# EQUIPMENT: RELIABILITY



**Machine:** 3 Zone Thermal Shock Tester

**Brand:** TESKO (SAMWON TECH)

**Specification:** High Zone: Rt ~ 150 °C  
Low Zone : -70°C ~ 0°C

**Function:**

Used to test and measure a product's resistance to failure from sudden extreme temperature changes over a short period of time.



**Machine:** Isothermal-humidity Test

**Brand:** TESKO (NEXCON)

**Specification:** -40°C up to +150°C

**Function:**

Used to test temperature and humidity and to place products in elevated environmental stresses to induce failure to verify actual impact of surrounding to products.



**Machine:** Underwater Voltage Test

**Brand:** TESKO (KIKUSUI)

**Specification:** Maximum 500V(0.5kV)

**Function:**

Used to check splice joint insulation for any electrical leak caused by micro wholes or cracks in wire insulation



**Machine:** Compression Measuring device

**Brand:** Leopard

**Specification:** Software

**Function:**

Software analyzing actual compression area measurement by plotting and giving exact area value for compression computation.

# EQUIPMENT: RELIABILITY



**Machine:** Measuring Microscope

**Brand:** Nikon MM-400

**Specification:** 0mm - 100mm

**Function:**

Measuring microscopes are used for making non-contact measurements of a specimen's X-Y axis or any planar dimension in the microscope field



**Machine:** Voltage Drop Tester

**Brand:** KAST Engineering Co., Ltd

**Specification:** Maximum 20V

**Function:**

Voltage Drop testing is a method of electrical diagnosis that can quickly locate high-resistance problems in a circuit.



**Machine:** Tension Testing Machine

**Brand:** TESCO (Nanotech)

**Specification:** 1kN

**Function:**

Tensile test machines, also known as tension test machines evaluate the tensile strength of specimens.



**Machine:** Circuit test Machine

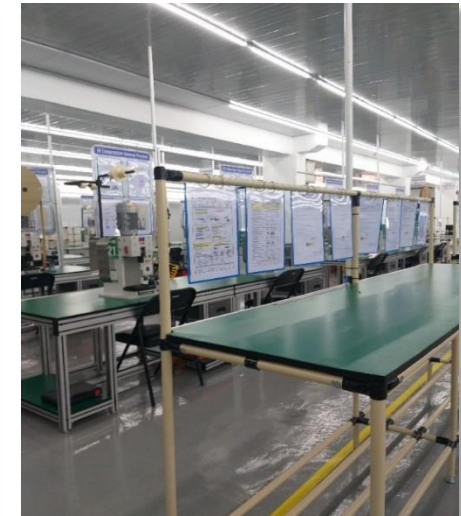
**Brand:** CIS Solutions

**Specification:** 0-60 connection  
Vacuum 0.5 Mpa

**Function:**

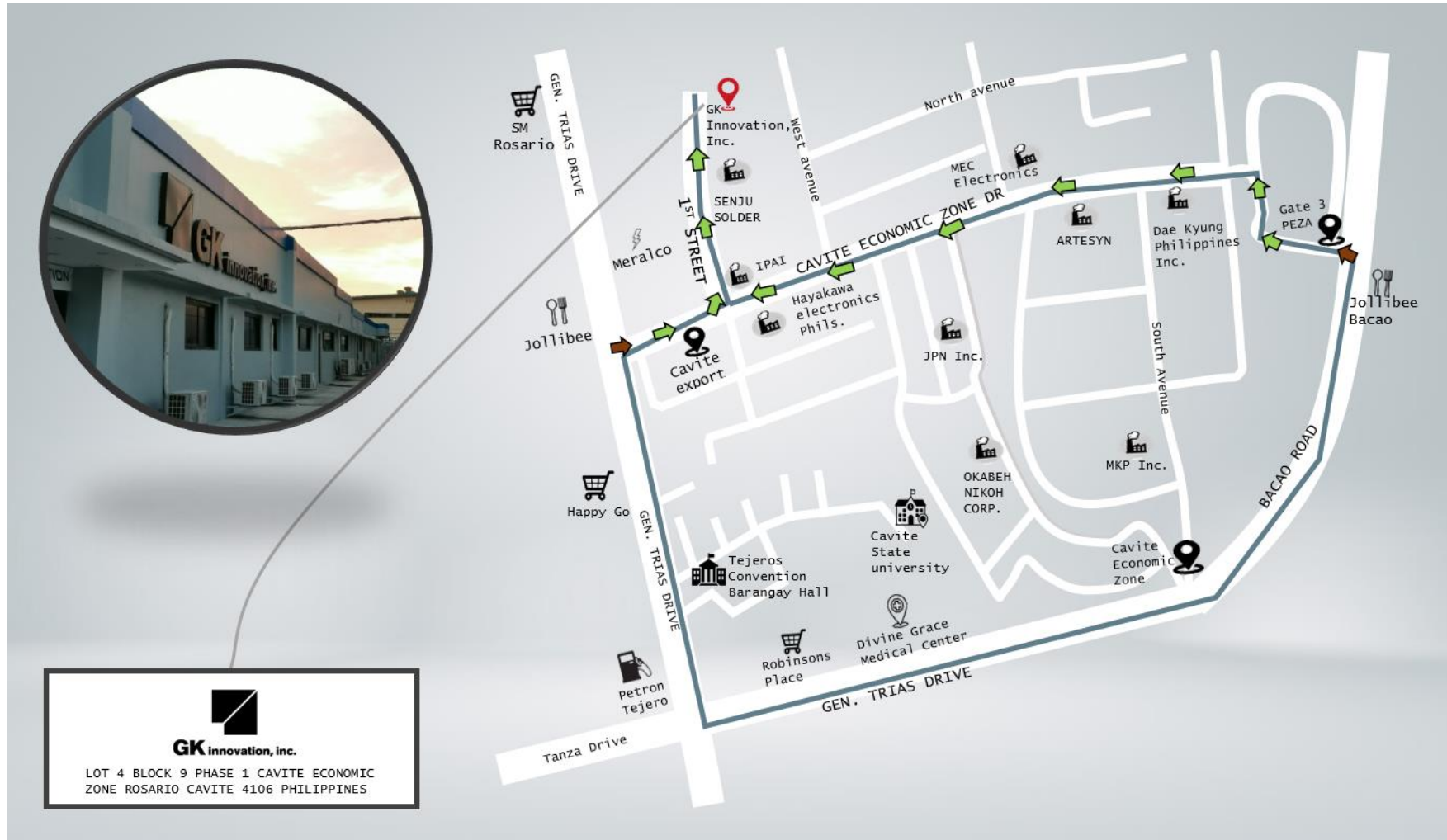
Electro mechanical Device used to check integrity of product connection based on schematic and also verify vacuum seal Compliance to the requirement

# COMPANY VIEW





# LOCATION



# Thanks

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