

# Service offering Cable assemblies

Reliable cable  
connections

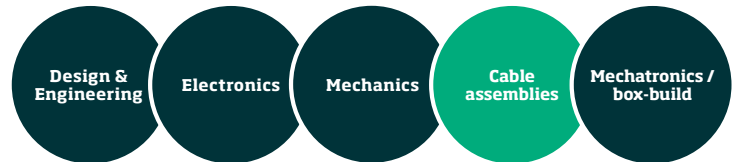


# Verified cable assembly processes according to IPC-620

Reliable cable assemblies are vital for modern devices to function, whether it is electronic products in general or integrated systems intended for extreme environments.

Our machinery at GPV's cable manufacturing sites in Europe and Asia includes fully automatic cutting and stripping machines, crimping machines with crimping-force monitoring, cable harness winding machines and ultrasonic welding equipment.

## Competencies



**Our IPC-620 certification combined with our wide-ranging capability in wiring harnesses enable us to deliver:**

- > Batch sizes from 1 to 300,000 pieces per year
- > Dimensioning: from 1 to 1,000 wires per strand
- > Lengths: from 5 cm (1.96 in) to 50 m (54.68 yd)
- > Complex cable assemblies and testing

## A glimpse at our applications

Our customers' diverse requirements, e.g. special vehicle construction, agricultural vehicles or even aerospace, can all be expertly covered by our subsidiaries.

The product range covers products from simple cable assemblies to complex wire harnesses, entire motor-cabling solutions, control units and plug-and-play modules.

## Fields of application:

- > Cabins
- > Construction equipment (such as cranes and excavators)
- > Defense Technology
- > Fire trucks
- > Light-aircraft construction
- > Municipal vehicles
- > Rescue vehicles
- > Snowmobile and jetski
- > Tractors / agricultural machinery





# Competencies over the complete process

## Typical processes flow



### NPI

- › Construction with CAD software (RUPLAN Kabi)
- › Preparation of documents such as work instructions, cutting list, layout for lay board
- › Set-up of lay board

### Cutting / Stripping / Crimping

- › Semi-automated equipment for all process steps (cutting up to Ø 30 mm, stripping and crimping 0.03 - 6 mm<sup>2</sup>)

### Automated crimping

- › Fully automated cutting, stripping, crimping incl. inkjet printing (0.25 - 6 mm<sup>2</sup>)
- › Semi-automated crimping of cable lugs (up to 90 mm<sup>2</sup>)

### Sub-assembly

- › Assembly of connectors
- › Sub-assembly of parts / modules
- › Ultrasonic welding
- › Macromelt (e.g. connector enclosures, strain reliefs)

### Wire harness assembly (incl. braiding)

- › Set-up of main assembly on lay board
- › Taping (bundling)
- › Braiding (heat and mechanical protection)

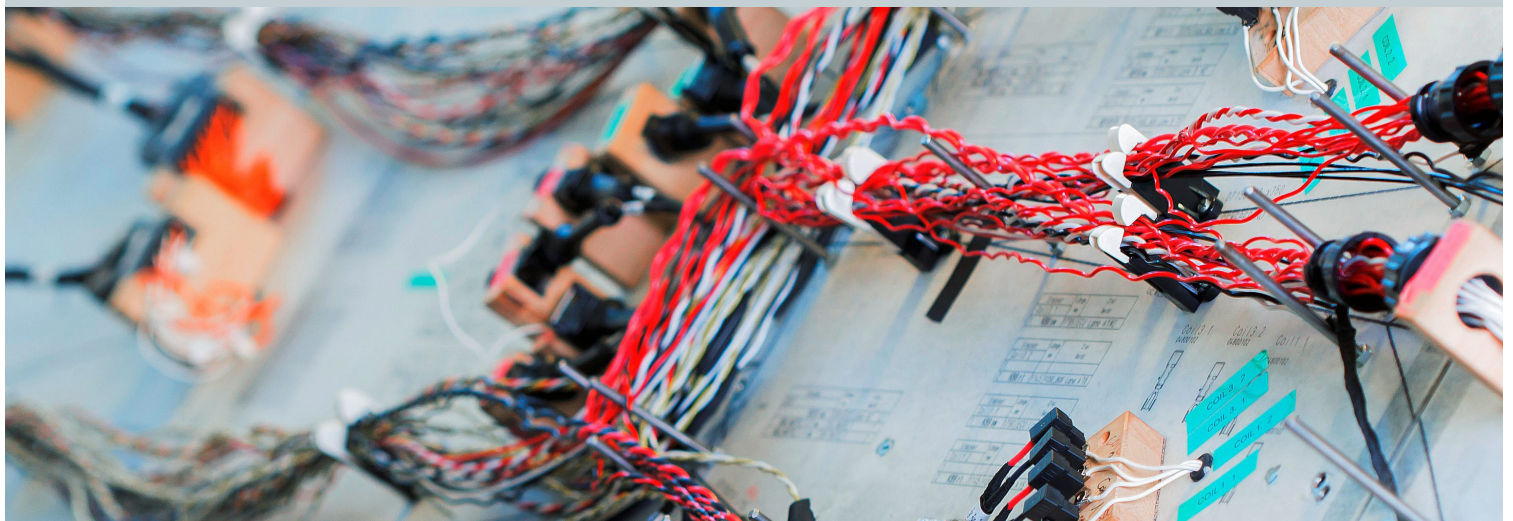
### Testing

- › Laboratory test (IPC conformity)
- › Cabinet functionality test
- › Contacts pushout test
- › Electrical test on lay board

### Box-build & final testing

- › Complete box-build units
- › Electrical cabinets
- › System integration
- › Embedded final testing

**GPV** – your partner for box-build, turnkey solutions including electronics (EMS), cable harness assemblies and sheet-metal works.



# The hardware of the digital world

**From ambition to real products**

## **A unique customer perspective**

GPV is committed to ensuring that our customers accomplish more. We do this by building strong and trusting partnerships based on responsible and honest cooperation.

We acquire comprehensive insights into our customers' needs and industries, and we manage advanced and stable product processing, relying on our strong technological knowledge.

## **Stable. Specialised. Global.**

In everything we do, we focus on creating value for our customers, and our approach is supported by the strong spirit of our organisation. As such, we always strive for a timely delivery of faultless, secure and functional products and services that fulfil the expectations and requirements of our customers.

**> [gpv-group.com](http://gpv-group.com)**



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GPV Electronics TH  
Bangkok, Thailand

GPV Mechanics TH  
Bangkok, Thailand

GPV Electronics LK  
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