



SONACA NORTH AMERICA

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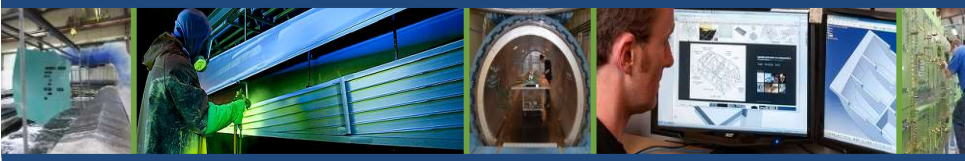
LENEXA KANSAS

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Who We Are | Award-Winning Partner

Sonaca North America



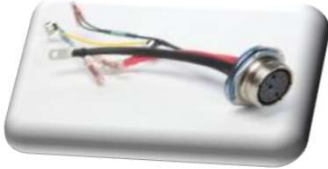







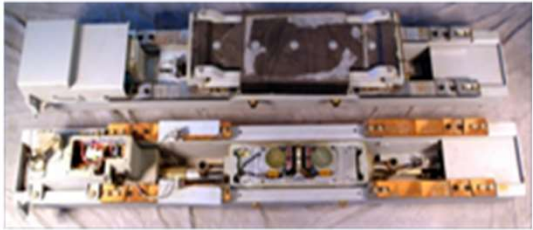
- Sonaca NA– a member of the SONACA Group
- 2,000+ resources in 15 facilities in 3 countries
- Products on World Class Air, Land & Sea Platforms
 - Engineering Design and Services
 - Machining of Hard and Soft Metals
 - Complex and Simple Sheet Metal Fabrication
 - Thermoset and Thermoplastic Composites
 - Chemical processing and paint
 - Structural Assembly
 - Electrical Assembly
 - Kitting

LENEXA FACILITY



- Located in Lenexa, KS
- Wire Harness Center of Excellence
- Commercial Products Center of Excellence
- Aerospace Bench Top Assembly Center of Excellence
- Founded in 1999
- 25,000 Sq-Ft Facility
- Located in Kansas City Metropolitan Region
- Experience, Tenured Mfg & Eng team
- Wire/Harness, Electro-Mechanical, Structural Assy
- Products for Planes, Trains and Automobiles
- ISO9001-2015 + AS9100 Rev D Certified

What We Do | Industries & Customers

SIZE / COMPLEXITY	Simple	Moderate	Complex
Small	 <p>Wire Leads/Jumpers</p>	 <p>Assorted Cable Assemblies</p>	 <p>Turnkey RF Radio</p>
Med	 <p>Turnkey Railway Signals</p>	 <p>Assorted Wire Harnesses</p>	 <p>Turnkey Control Boxes</p>
Large	 <p>Turnkey Boom-Operated Aircraft De-Icer</p>	 <p>Turnkey Rail Yard Switch Point Machine</p>	 <p>Turnkey Railway Switch Machine</p>

WHAT WE DO & SEGMENTS WE OPERATE IN

We have served a variety of industries and customers, including:

TRANSPORTATION	AEROSPACE	INDUSTRIAL	GOV'T/DEFENSE
  	   	 	 



HARNESS AND CABLE FABRICATION

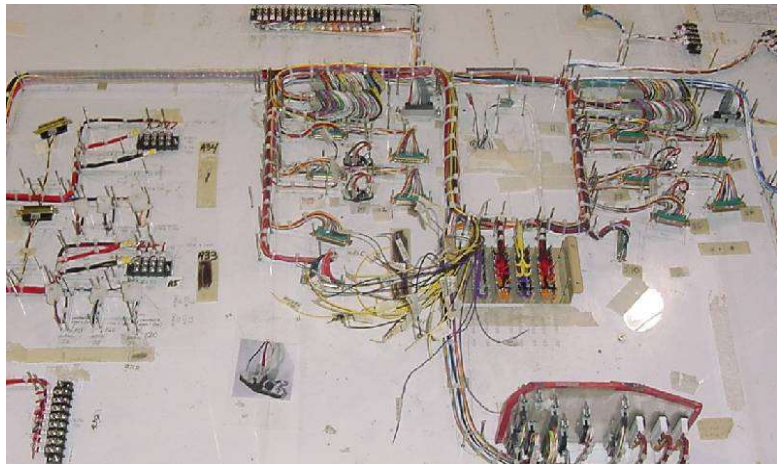


Harness and Cable Integration - Product Examples



- Enclosure build up with PCB and Software Burn-In
- Electromechanical Assembly
- Vehicle system integration
- Wire Harnesses Build Up
- Stuffed Avionics Racks

Small to Complex Assemblies



Wire Harness



Aerospace Electrical

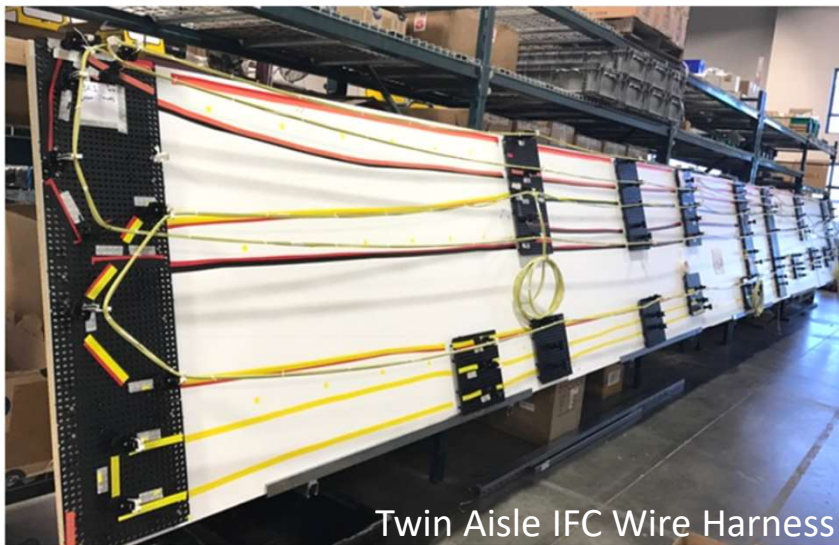
Harness and Cable Integration - Product Examples

Diverse Capability

- Simple wire leads to complex harness assemblies
- Design and Integration Services
- RF/Coax Phased Match Sets
- All types of connectors
- Full Turnkey Electrical Enclosures



- Machine-braiding
- Application of sleeving for abrasion protection
- Variety of coverings including RFI / EMI shielding & Heat shrink

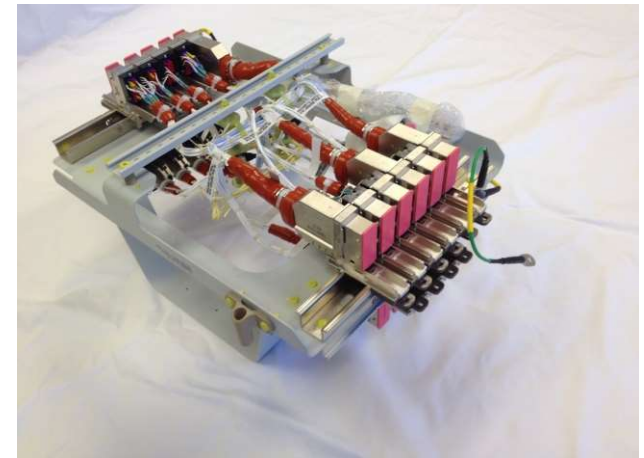
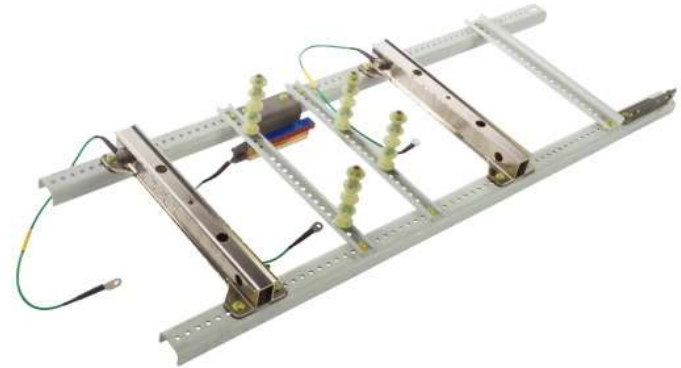


Twin Aisle IFC Wire Harness

Harness and Cable Fabrication - Engineering and Quality

Quality and Engineering Capability

- AS9100 Rev D
- Electrical Engineer on Staff
- Manufacturing Engineer on Staff
- Sonaca NA Engineering Services available for full design and integration solutions
- Associates qualified to IPC-620 & J-Standard
- CATIA/ENOVIA
- UNIGRAPHICS
- PMI experienced





EQUIPMENT AND PROCESS DETAIL



Harness and Cable Fabrication - Cut & Strip

Wire Stripping

- CO2 laser stripper that will not nick or damage the conductor while removing the insulation
- Easily Strip a wide range of wire types, sizes, and gauges. Sizes as small as 0.030" with tolerances as tight as .001"
- Quick Changeover from one wire size to another with our included tooling.
- Built-in User-friendly laser software for processing wires with ease and accuracy.



NoNic™ Benchtop Laser Wire Stripping System

🌱 Harness and Cable Fabrication – Coaxial Stripping

Coaxial Stripping

- Semi-automatic, programmable stripping machine
- Performs both single and multiple stage strips
- Wide range of wires and cables such as coaxial and multi-conductor cables
- Strips very thin and tough or slightly out-of-round insulations
- Maximum outside diameter of 15 mm (0.59") at a maximum stripping length of 85 mm (3.35")



Schleuniger CoaxStrip 5500

Harness and Cable Fabrication – Printing & Marking

Laser Marking

- UV laser printer capable of printing on almost all insulation types.
- Ability to print on sleeving and heat shrink materials.
- Built in cutter for batch jobs allows for auto cutting to length.

Additional Marking

- Ink jet
- Hot-stamp markings



Tri-Star M-100L Laser Printer

Harness and Cable Fabrication – Crimp & Terminate

Crimping and Terminating

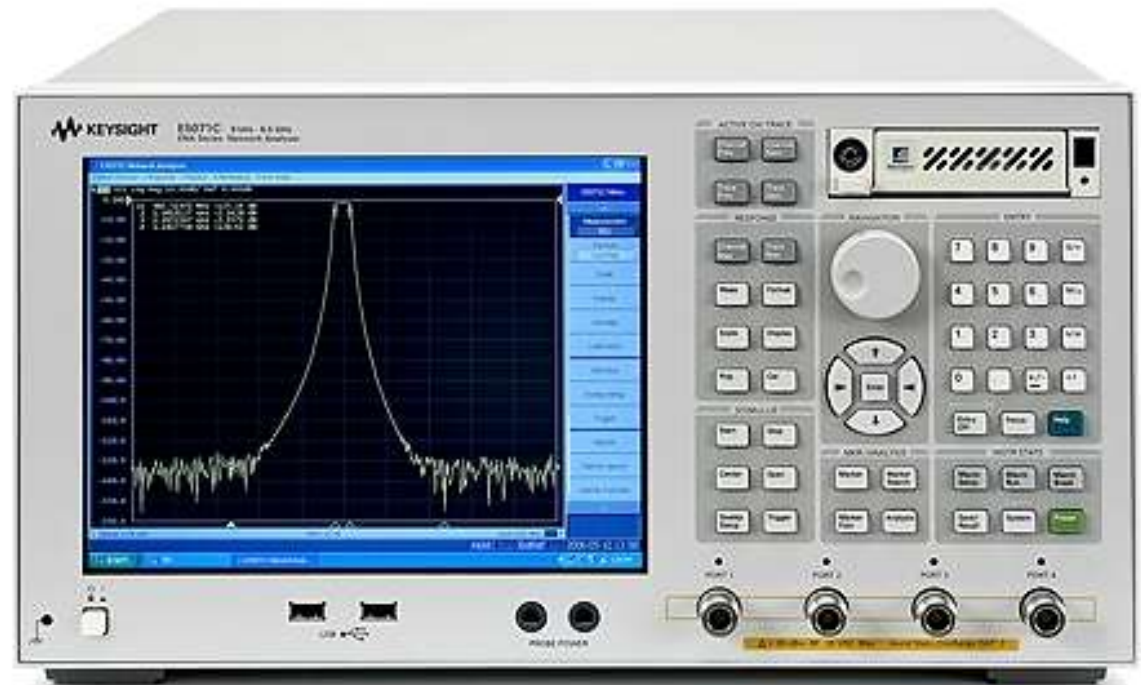
- Automatic, Semi-Automatic and Manual capabilities
- Applicator line (all major brands)
- Assorted handheld Crimp tools
- Pull-Testing Equipment satisfying UL and MIL-SPEC standards



Harness and Cable Fabrication – Frequency Testing

RF Testing Capability

- 9 kHz to 20 GHz
- 50-ohm, S-parameter test set
- Dynamic range up to 130 dB
- VSWR verification to Customer Specs
- Insertion loss verification
- Phase length measurement verification for matched sets
- Frequency response verification across operational bandwidth



KEYSIGHT: E5071C ENA Series Network Analyzer

Harness and Cable Fabrication – Quality

Electrical Testing Capability

- Continuous high-speed scanning for real time complete status information of harness assembly progress
- 50 to 1500 Volt AC/DC Hipot Testing
- 5Mohm to 1Gohm Insulation Resistance
- Simple 4-button user interface
- Tests for continuity and shorts
- Tests diodes, resistors, capacitors and others
- Precision resistance measurements
- Keyed security access and control



DYNALAB NX HIPOT + CONTINUITY TEST SYSTEMS

