



PEOPLE



PROCESS



SOLUTIONS

# Reliable Custom **Connectivity**

**Engineered Solutions for High Performance Systems**





## NAI Connectivity Solutions - Overview

Agile designer and manufacturer of custom cable assemblies and harnesses

- Custom Engineering & Manufacturing
- The NAI Center of Excellence (CoE)
- Global Sourcing
- Products for Critical Applications
- Relentless Quality Systems
- An Organization Focused on Learning
- Strong Financial Backing



People, Products and Solutions Supported Financially Is the NAI Difference



## Portrait of NAI

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Agile designer and manufacturer of custom cable assemblies and harnesses

- Over 530,000 Sq. Ft. production capacity
- Over 2.5 million assemblies/month
- Over 25 million terminations/month
- Over 3,200 personnel and growing
  - Training additions to the labor force
  - Capital investments required
  - Global procurement
- Dedicated cells for High Mix/Low Volume
- Dedicated cells for High Volume/Low Mix
- Global operations for value & proximity



25 Years of Success Shipping >\$1 Billion in Cable Assemblies and Harnesses



## Custom Engineering & Manufacturing

- Save by outsourcing through NAI
- Added value with design engineering services
- Cost savings with alternate components
- Diligent QMS for product reliability
- Quick turnaround on samples and new products
- Fast Prototyping



NAI Is An Expert With Build To Print And Build To Design Opportunities



## Custom Engineering & Manufacturing

Cable Assemblies – Small to complex

Low Mix, High Volume and High Mix, Low Volume

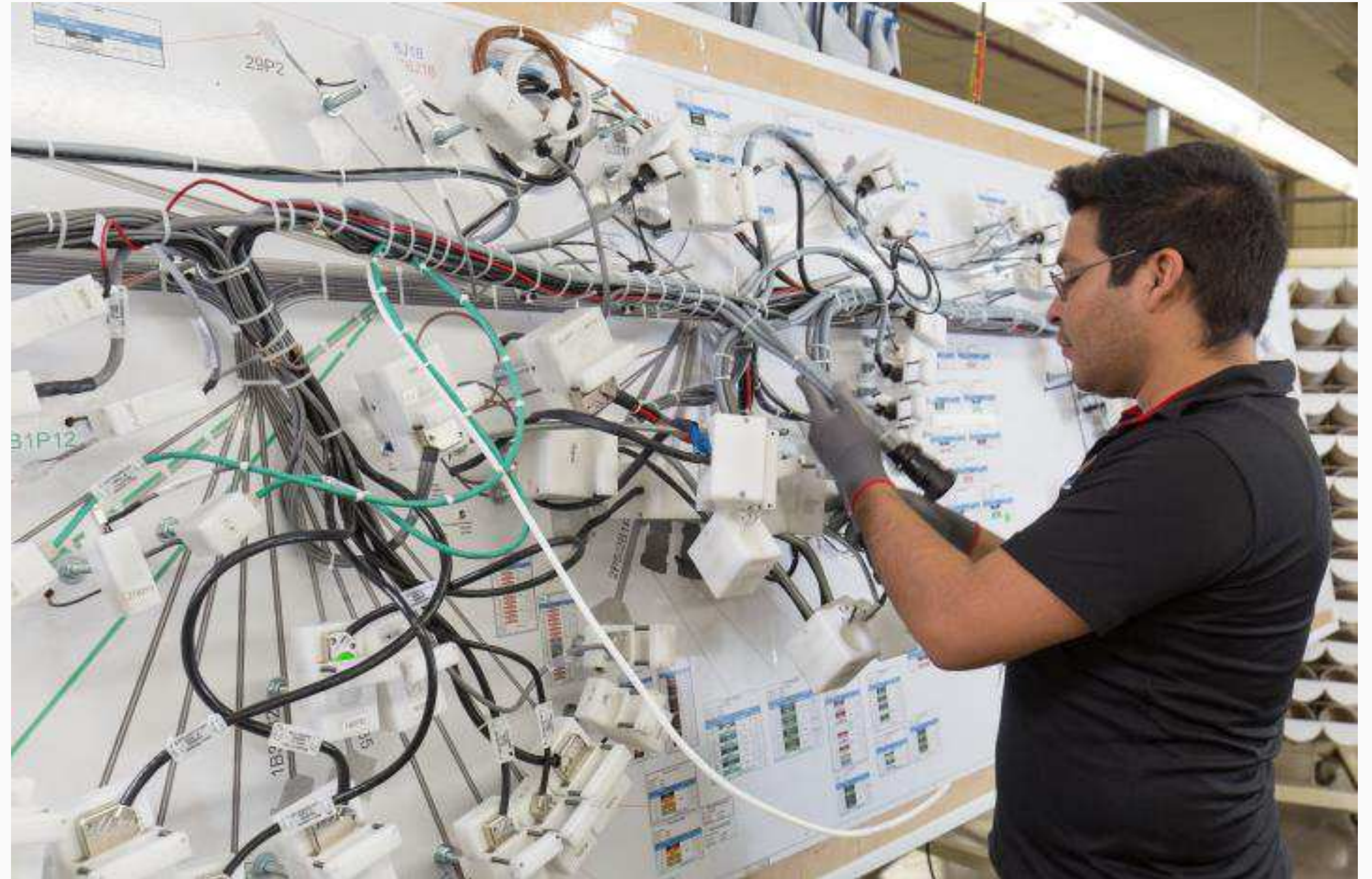


NAI Offers A Broad Range Of Capabilities, Markets And Applications



## NAI Manufacturing Capability

- Agile management team accelerates decision making for capital expenditures and hiring
- Full production ramp up in less than 4 to 6 weeks
- First article prototypes in less than 2 to 3 weeks  
\*Based on component material availability



NAI Has Manpower, Equipment and Plant Flexibility To Ramp Up Quickly



## NAI Engineering Capabilities

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### Center of Excellence Objectives:

- 1) Design and develop fiber optic cable assemblies for customers who need to outsource their design capabilities.
- 2) Achieve cost savings for customers by using alternative processes and components to reduce the purchase price variance.
- 3) Support the NAI manufacturing process by employing DFM principles in the design process.



Dedicated Factory Space, People and Equipment For Fast Prototyping

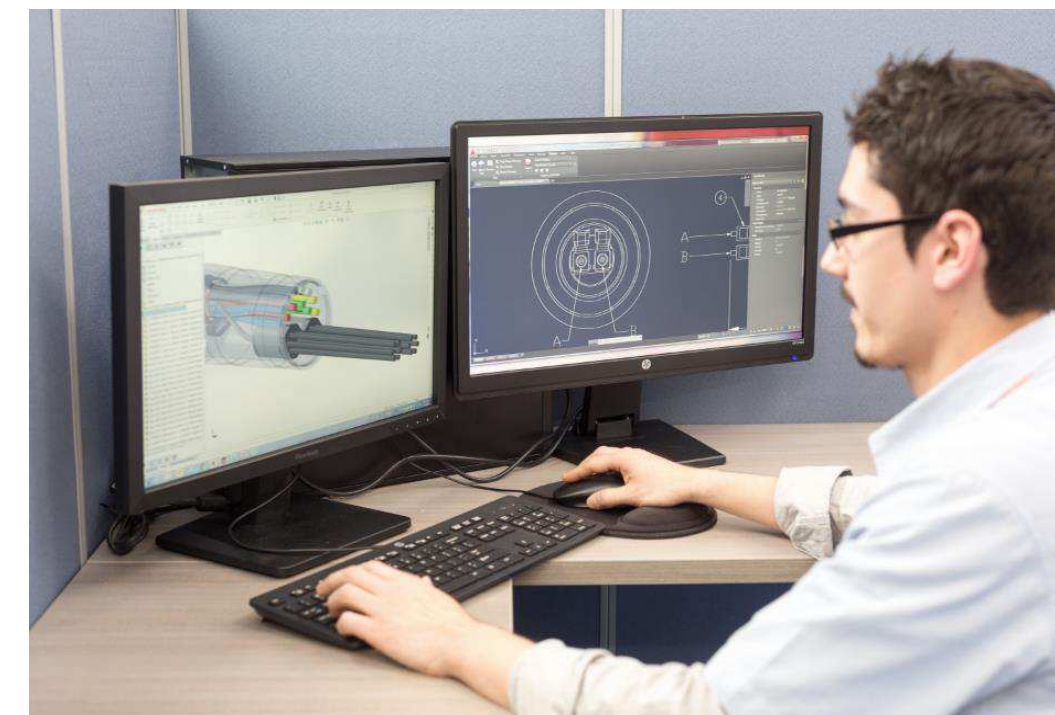


## NAI Center of Excellence (CoE)

Testing: Thermal, Immersion, Cross-section, Tensile, End face & geometry



CAD Design & 3D Printing



NAI Investing In Technology Ensuring Product Functionality

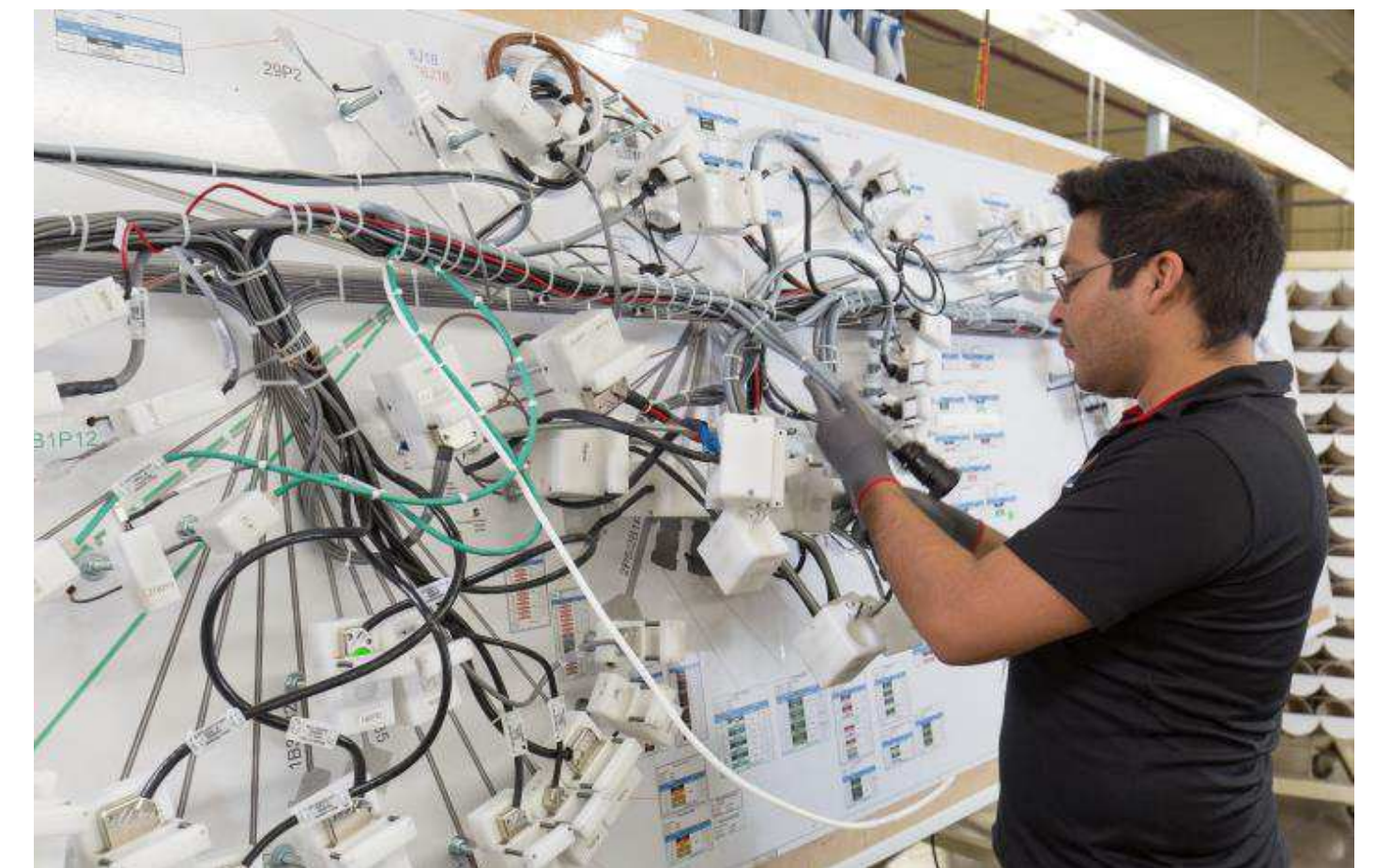


## Relentless Quality at NAI

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### NAI's NEW Product Introduction (NPI) Process

- Dedicated facility space
- Dedicated team of engineers & quality experts
- Develop new cable assemblies
- Prepare the tools & visual aids needed for production
- Utilize Advanced product Quality Planning (APQP) process, similar to auto industry
- Create prototype, production sample & BOM



NAI Differentiates New Product Development With Dedicated Teams



## Assemblies for Critical Applications

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### Industrial Engineered Solutions

- Energy & power
- Measurement & control devices
- Process control
- Testing for pulp & paper manufacturing
- Internet of Things (IoT) Network test devices
- Oil & gas testing equipment
- Semiconductor
- Water treatment



NAI Has Extensive Experience Serving Multiple Fortune 500 Companies



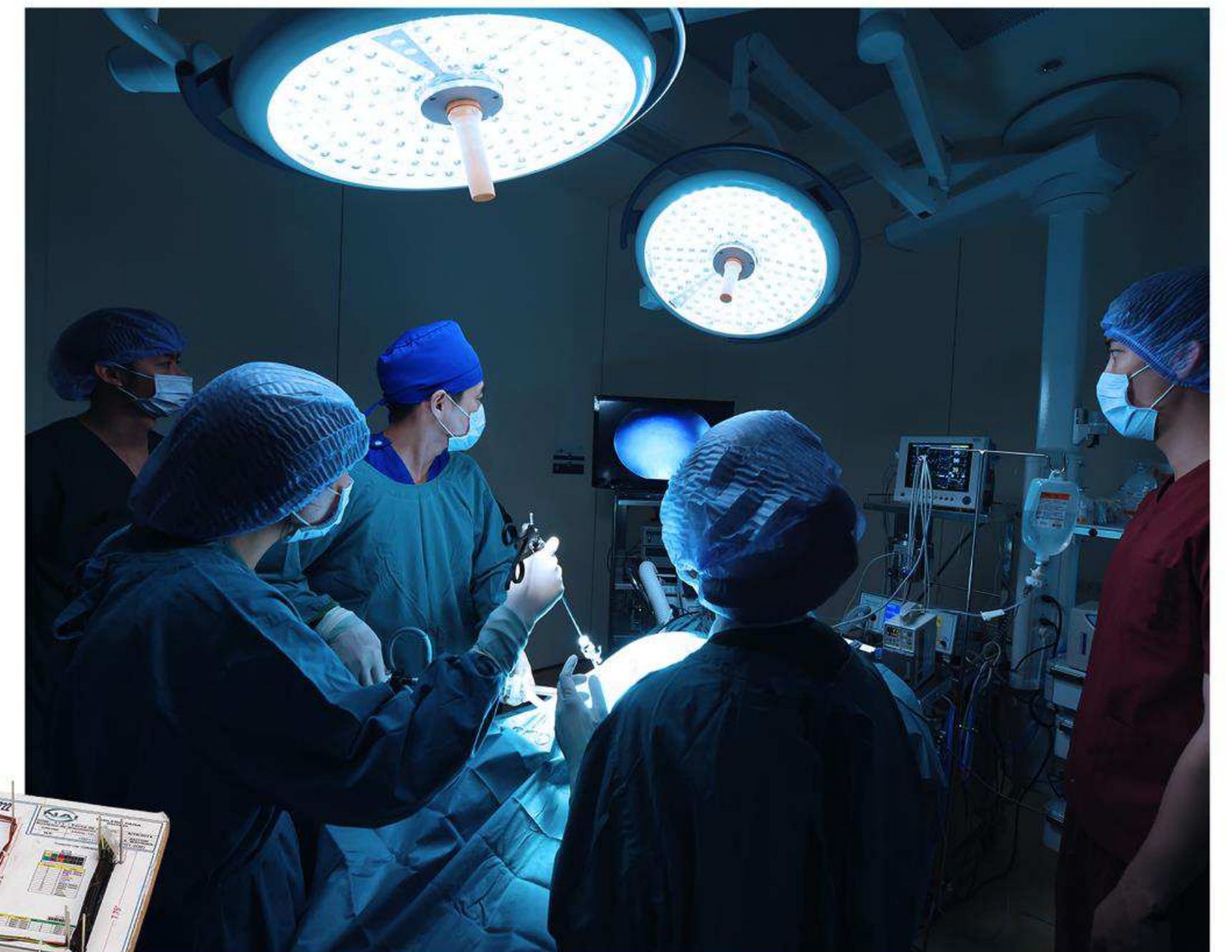
## Assemblies for Critical Applications

### Medical Devices

- Coblation surgical assemblies
- Over-molded pulse oximeter assemblies
- Surgical knife assemblies
- Ultrasound assemblies
- Laparoscopic surgical assemblies
- Disposable surgical wand assemblies

### Medical Equipment

- MRI, PET and CAT Scan equipment
- Autoclave sterilization
- DNA and chemical analysis hardware
- Patient handling equipment
- Other lab and test analysis equipment



Medical Equipment and Device Companies Come to NAI For Their NPI And Production Needs

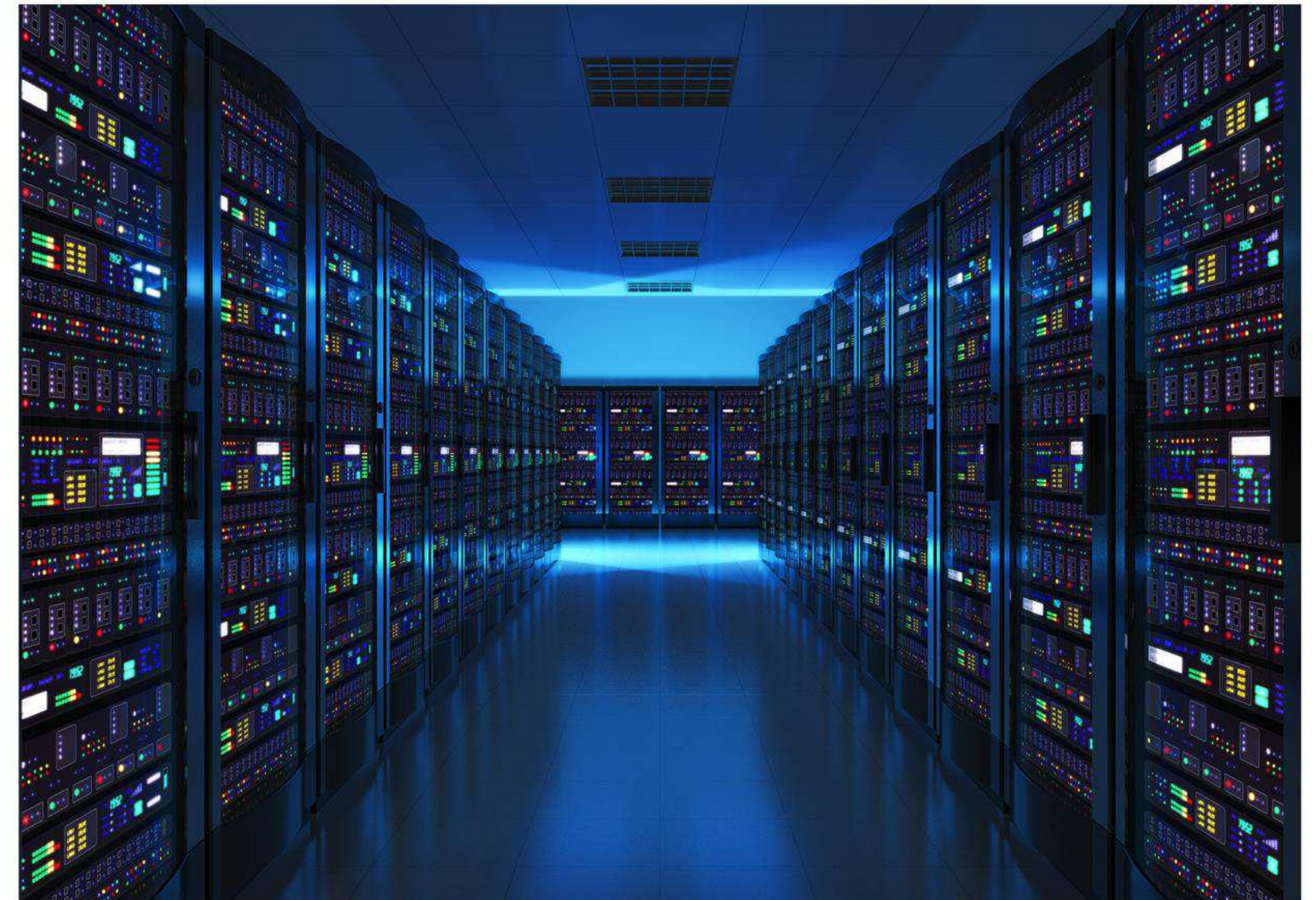
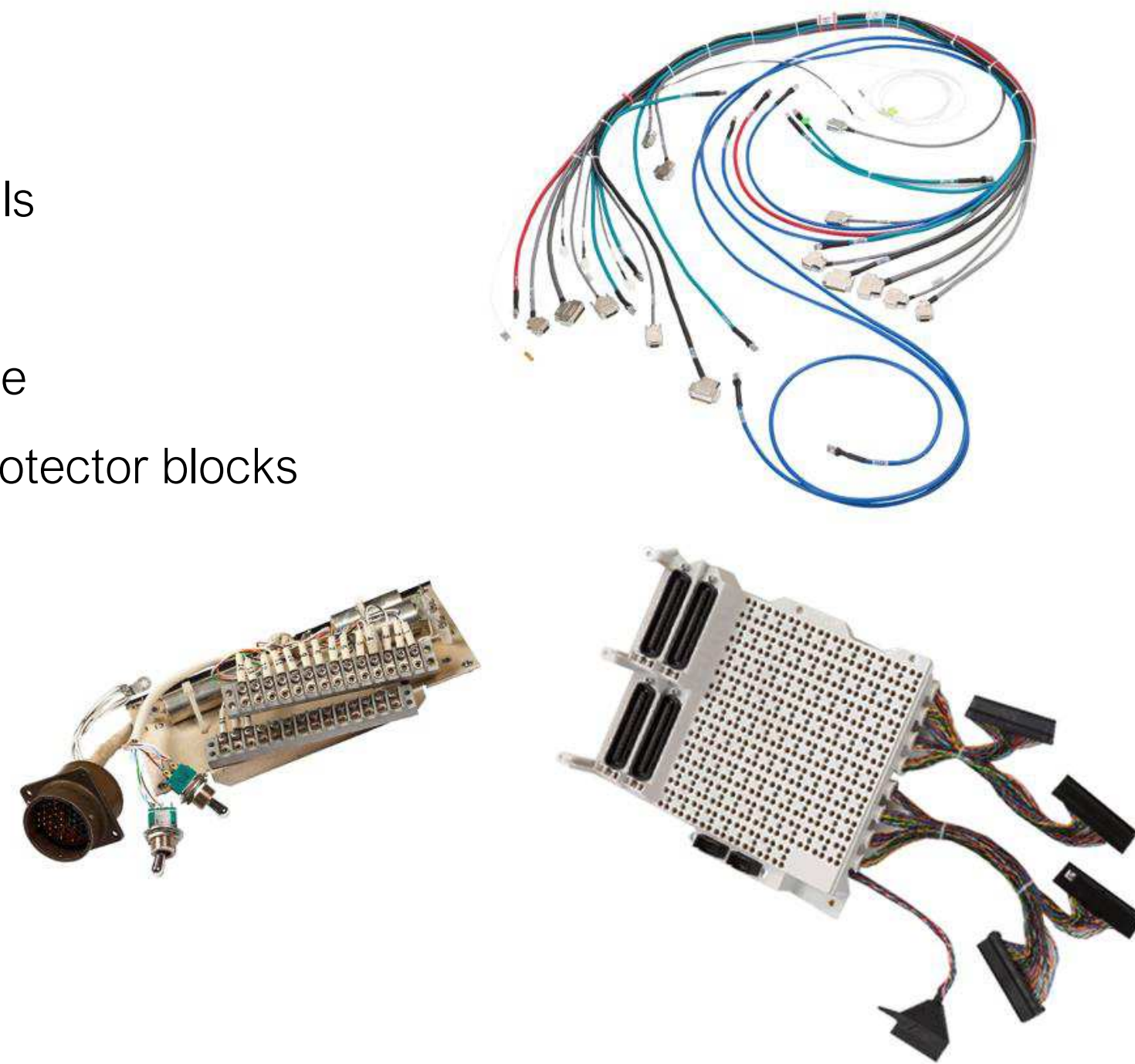


## Assemblies for Critical Applications

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### Telecom & Data

- ADSL/VDSL
- Building Entrance Terminals
- Central Office assemblies
- Full fiber optic jumper cable
- OSP and Central Office protector blocks



NAI Offers Both Fiber and Copper Solutions for Mission Critical Applications

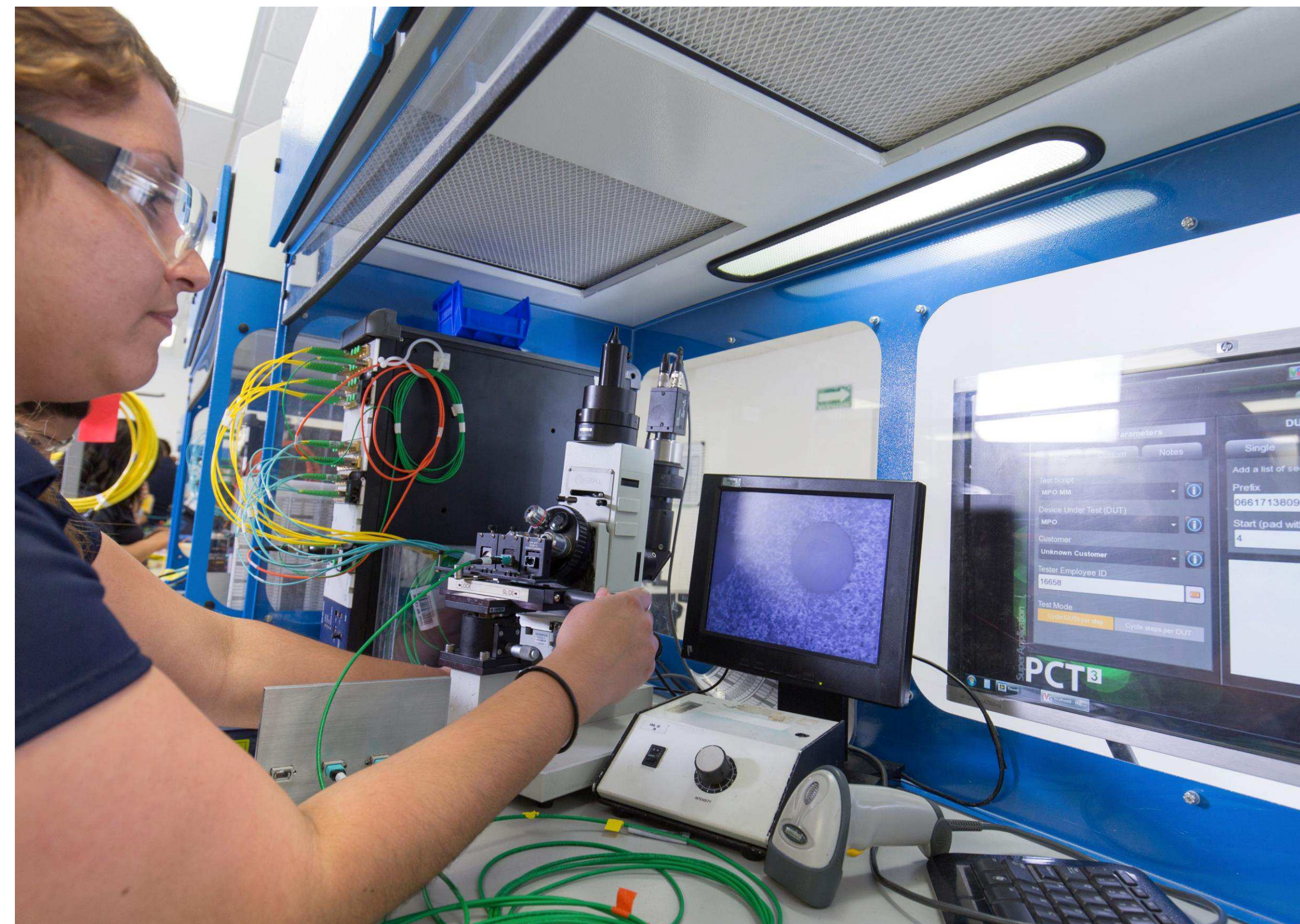


## Relentless Quality at NAI

### Fiber Optics: Inline Quality Control

All assemblies are 100% inspected. State-of-the-art equipment used for:

- Insertion Loss/Return Loss
- Attenuation
- Geometry, including concentricity and light continuity
- End face inspection after polishing
- Air cleaning equipment removes contaminants



NAI Utilizes A Unique Clean Air Handling System That Mitigates Contaminants



## Relentless Quality at NAI

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### Copper: Inline Quality Control

All assemblies are 100% inspected.  
Electrical test include continuity, high voltage (HiPot) and capacity.  
Some of the tests we perform include:

- Subassy electrical test
- Manufacturing visual inspection
- QA inspection
- Plug blade height
- Tensile test
- Pressure test
- Texture test
- Fluke test (Insertion Loss/Return Loss)



Every Product Is 100% Tested Before Leaving Our Facility



## Sterling Quality Systems at NAI

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### NAI Certifications:

- ISO 9001:2008 – for overall quality
- ISO 13485:2003 – for medical product quality
- TL9000 – for telecom product quality
- AS9100 – for aerospace product quality
- 2011 C-TPAT
- UL and (C(UL) certifications

Let us know what certifications you need!



NAI Upholds A Vast Number of Industry Certifications Including AS9100



## Relentless Quality Systems at NAI

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### More Quality Certifications:

- Critical to Quality (CTQ) process – additional layer of testing
- For rare complaints, we implement corrective action
- Equipment calibrations maintained by dedicated crew
- Regular Kaizen events to improve processes
- Customers have access to all QC data for their project



Continuous Improvement Is Our Culture



## An Organization Focused on Learning

NAI people are assembly experts with a permanent and dedicated Training Team

- For new hires
- Establish specific training programs
- Trainers maintain supervision during production
- Efficiency & quality levels are tracked
- Responsive, fast & competitive



Regimented Training Processes Expedites and Ensures Employee Competency



## NAI Supply Chain Services

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- World class integrated Supply Chain Team utilizing a global MRP system.
- Demonstrated experience managing a global supply base and blended Mexico & China manufacturing solution for Fortune 500 Companies.
- Global Distribution Center in Nogales, AZ for kanban and vendor managed inventory services.
- Major focus on reduced cycle time and integrated component material planning with key suppliers to ensure on-time delivery (key supplier metrics tracking and scoring).
- Inventory risk assessment for long LT and custom components.



NAI Creates A Supply Chain That Meets The Customer's Requirement





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Engineered Solutions for High Performance Systems

*Thank  
You!*