

# **ON-ENGINE ELECTRICAL CABLE ASSEMBLIES**



HARCO custom-designed electrical cable assemblies are a cost-effective solution for the most demanding flight conditions. Benefitting from an engineered design that takes into account the operating environment, performance requirements, and repairability, HARCO assemblies deliver excellent performance and high reliability in a wide variety of jet engine applications.

Superior design features, competitive pricing, and unmatched delivery performance make HARCO cable assemblies the preferred choice for jet engine OEM's and major overhaul and maintenance facilities around the globe.

#### **Features**

- Overmolded Backshells
- Braided Jackets
- Branched Assemblies
- Repairable Backshells

## **Benefits**

- Vibration Damping
- Moisture Resistance
- Shock Resistance
- EMI/RFI Protection
- Abrasion Resistance
- Strain Relief
- Reduced System Weight
- Reduced Connector Count
- Field Repairability



### **DESIGN SUPPORT**

### **Dedicated Support Teams/State-of-the-Art Design Tools**



A HARCO product development team is assigned early in the product development process. This customer-focused team is comprised of specialists in project management, design, manufacturing engineering, and quality assurance. They assist the customer in designing the most efficient configuration while ensuring that the final product meets all requirements.

HARCO's design team is supported by a fully networked CAD system employing state-of-the-art Finite Element Analysis software to mathematically model structural and thermal design parameters.

HARCO's CAD system offers a high degree of compatibility with customer systems and provides a centralized library for our entire Engineering and Reference System, including access to detailed drawings and common parts specifications.

## SPECIALIZED MANUFACTURING PROCESSES

## **Braiding**



- Fiberglass Braid
- Stainless Steel Armor Braid
- Nomex Braid

#### **Molding**



- Hydrocarbon Resistant Elastomers
- Operational Temperature to 450°F
- Moisture Barrier and Vibration Dampening

### **IN-HOUSE TEST FACILITIES**

#### **Electrical**



All HARCO cable assemblies are 100% tested for electrical performance.

As a minimum each harness is tested for:

- Insulation Resistance
- AC and DC Dielectric Testing (Hi-Pot)
- Continuity
- Shield Impedance

500 megohms @ 500 VDC

< 2 ma @ 1500 VAC

Circuit-to-Circuit Verification

< 0.1 milliohms/faying surface

#### **Environmental**



HARCO cables are tested to the most rigorous environmental standards. Typical tests include:

• Humidity 10 days 98% relative humidity

Thermal Shock -55°C to 260°C

Represented by: