

Vilasini Mechatronics Pvt. Ltd.

Product Catalogue

Company Overview

Vilasini Mechatronics Pvt. Ltd. is a trusted Indian manufacturer specializing in custom wiring harnesses, connector assemblies, and precision electro-mechanical components. With a strong presence in the defense, aerospace, and industrial automation sectors, our mission is to deliver rugged, high-quality cable assembly solutions that meet stringent standards.

Registered Office:

h-32/89, Sector 3, Rohini, New Delhi - 110085

Works Address:

Plot no 475 1st floor, Industrial Area Phase 9, Sahibzada Ajit Singh Nagar (Mohali) 160062

1. MIL-Grade Cable Assemblies



MIL Grade Circular Connectors Cable Assemblies



D Type Microdot Connector Cable Assemblies



MIL grade D-TYPE MicroDot Connector & Circular Connector combined Cable Assemblies

MIL grade circular connector cable assemblies are engineered to meet the rigorous standard of military and aerospace environments. These assemblies offer robust mechanical and environmental protection, ensuring reliable signal and power transmission even under extreme conditions.

Applications:

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- Radar and Avionics systems
- Military ground and Air vehicles
- Tactical Field Communication systems

Features:

- EMI/RFI shielding for interference free performance
- IP rated sealing for dust and moisture protection
- High durability under vibration, shock, and extreme temperatures
- Compliance with MIL-DTL-5015, MIL-DTL-38999, or similar military standards

These assemblies are fully tested for continuity, insulation resistance, and withstand voltage as per customer or MIL specifications.

2. Cable Harnesses for Armored Vehicles and Aircraft (Tropicalized Environment)



*45 PIN GHOST Standard Cable
Assembly for AV's*



*EMI Shielded GHOST Grade
Assembly*



Wire Socket Assembly

Our tropicalized standard cable harnesses are specifically designed to meet the stringent performance and environmental standards required by military armored vehicles and aircraft operating in tropical and harsh climatic zones. These harnesses comply with JSS and defense aviation standards, ensuring optimal functionality in high-temperature, high-humidity, and vibration-prone environments.

Applications:

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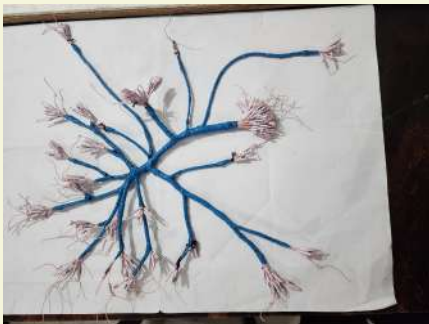
- Armored personnel carriers and combat vehicles
- Rotary and fixed-wing aircraft
- Battlefield communication systems
- Fire control and radar interface wiring

Key Features:

- Tropicalization Treatment: Enhanced insulation and sealing to resist fungal growth, moisture ingress, and thermal cycling
- EMI/RFI Shielding: Ensures signal clarity even in high-electromagnetic-interference zones
- Use of rugged connectors, protective sleeving, and modular construction for easy maintenance and replacements
- Customized Configuration: Tailored pinouts, labels, and overbraiding to suit platform-specific architecture

These harnesses are 100% tested for electrical parameters, continuity, insulation resistance, and withstand voltage. With precision routing and ruggedized terminations, they are built to withstand tropical deployment conditions over prolonged operational cycles.

3. Complex Communication Chords, GPU Harnesses for Aircraft Charging & RF Cable



350 ends Communication Chords



GPU HARNESS



RADIO FREQUENCY AVIATION
CABLE ASSEMBLY

We offer a comprehensive range of specialized cable assemblies for critical defense and aerospace applications:

Complex Communication Chords:

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- Multi-branch loomed assemblies built on harness layout boards
- Ideal for dense signal and power routing in avionics and control systems
- Labeled, traceable, and custom-coded for high-reliability installations

GPU Harnesses:

- Designed for rugged use in aircraft ground servicing
- Delivers stable, high-current power from Ground Power Units (GPU)
- Weather-resistant and mechanically reinforced for harsh outdoor conditions

RF Cable Assemblies:

- Precision coaxial harnesses for radar, telemetry, and communication systems
- Uses MIL-grade connectors (SMA, TNC, N-type, etc.) and low-loss cables
- EMI-shielded and tested for VSWR, insertion loss, and signal integrity

All assemblies are built to MIL and IPC/WHMA-A-620 standards, 100% tested, and quality-assured to perform reliably in mission-critical environments.

4. Industrial Vibration Assemblies & Automotive Sector Cable Harnesses



Vibration Cable Assembly



*Interface Cable Assemblies used in
Low Tension Panels*



SATA COMMUNICATION CABLES

Vibration Cable Assemblies (Industrial Applications):

- Designed to operate in high-vibration environments such as motors, compressors, and automated machinery
- Built with flexible, reinforced cables and vibration-proof terminations
- Offers resistance to oil, moisture, and temperature variations

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- Ensures uninterrupted signal/power transmission in dynamic industrial setups

Automotive Sector Cable Harnesses:

- Custom-designed wire harnesses for low-tension and control panels in vehicles
- Used in lighting systems, engine sensors, infotainment, communication modules, and powertrain circuits
- Features include molded connectors, high-heat insulation, and secure bundling
- Supports both conventional and electric vehicle platforms

All cable assemblies are produced with precision stripping, crimping, sleeving, and labeling. Each unit undergoes quality checks including continuity, insulation resistance, and vibration testing to ensure reliable field performance in demanding environments.

5. Manufacturing & Quality Assurance

- In-house testing: Continuity, IR, HV
- RoHS/CE compliant processes
- MIL-SPEC terminations
- OEM-sourced connectors & components

6. Plant & Machinery

									
BENCH TOP STRIPPING MACHINE	WIRE/CABLE/BRAIDS/SLEEVES CUTTING MACHINE	Crimping CUM STRIPPING MACHINE	WIRE PREFEEDER	HST/TUBES PRINTING CUM LABEL PRINTING EQUIPMENT	Pull Test Equipment	MIL GRADE CRIMPING TOOL KIT WITH DIES	LASER MARKING MACHINE	THERMAL STRIPPING EQUIPMENTS	soldering stations

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7. Our Customers

We are proud to serve leading organizations in the defense, aerospace, and industrial sectors. Our key customers include:

1. Hindustan Aeronautics Limited (HAL)
2. Bharat Electronics Limited (BEL)
3. Ordnance Factory Tiruchirappalli (OFT), A unit of Yantra India Limited
4. Bharat Dynamics Limited (BDL)
5. Armoured Vehicles Nigam Limited
6. DEBEL, DRDO
6. RCI, DRDO
7. Electronics Corporation of India Ltd. (ECIL)
8. DRDO Labs (Various Divisions)
9. Indian Air Force
10. Bharat Heavy Electricals Limited
11. International Centre for Automotive Technology
12. Ordnance Factory Tiruchirapalli, A unit of Advanced Weapon and Equipments Limited

8. Accreditation and Registrations

We have registered as a prominent manufacturer of cable assemblies and Electromechanical components with the following :-

- Opto Electronics Factory, Dehradun India Optel Limited
- Startup with DIIPT