



## Scientific use of cable accessories must be promoted widely

— **Janki Vachhani**, Director,  
A-1 Electricals

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A vital but often ignored aspect of the cables and conductors industry is cable accessories, comprising lugs, connectors, cleats, etc. Rajkot-based A-1 Electricals is a specialist in cable accessories, catering to both the Indian and international markets, for over 15 years now. In this interview, we have **Janki Vachhani**, discussing the technicalities and criticalities of cable accessories, the competency of A-1 Electricals, and the company's future plans.

We broadly understand that A-1 Electricals is in the business of cable glands, cable lugs, cable cleats, and cable accessories. Please take us through your product offerings in some detail.

A-1 Electricals with the use of advance technology manufacture cable accessories like cable glands, cable lugs and cable cleats and other accessories. All products manufactured are in accordance with respective design standards and also have successfully tested as per IEC requirements. Products manufactured by us are designed not only to comply with standards but also to give high performance and trouble-free service.

**Please discuss the importance of cable glands, cable lugs, cable cleats in power cables. What adverse impact could an inferior jointing/terminating have on the cable joint and the circuit?**

A cable gland is used for termination of a cable, which provides seal and retains it in the electrical equipment. Cable glands may also provide other functions such as earthing, bonding, insulation, strain relief or a combination of these.

**Cable lugs and connectors are mechanical devices for connecting a conductor to an equipment or for connecting two or more conductor to each other.**

A cable cleat is a device to provide securing of cables when installed at interval along the length of cables. It is required to ensure that cables are fixed, retained and supported correctly so that in the event of short circuit fault or any other emergency, they will contain the cables without causing damage; enabling the circuit to be resorted once the fault has been dealt with.

Studies in many parts of the world have shown that the biggest cause of failure of electricity supply networks, leading to unplanned outages is faulty conductor connectors, termination and joints. For all practical purposes, cables themselves never fail, unless subjected to external damage. It is where cables are terminated or joined that failures arise. These failures arise because defective conductor connection leads to high resistance joints which can even cause a fire.

With above facts it is particularly important to use correct type and size of cable glands, cable lugs and cable cleats are selected and installed.



### **Up to what kV level of power cables, do you supply cable accessories?**

Cable accessories suitable to use from low voltage (LV) up to 220kV voltage ratings are manufactured by us at the moment.

### **Installation of cable accessories, apart from a well-made product, also needs proper technique of usage. What is your view?**

The key accessories in any electrical cable installations are: conductor lugs and connectors, cable glands, cable cleats and cable joints. The causes of failure stated above are equally valid for large industrial/commercial/domestic electrical installation. It is fact that paying attention to the choice of electrical accessories and making sure that the recommended installation instruction are followed to the letter, will have a dramatic effect in ensuring the future reliability of the installation. The key design features and the criteria that should be used for the selection of appropriate products.

### **Does A-1 Electricals provide training in scientific techniques of crimping, jointing, etc?**

Yes, we provide training in scientific techniques of crimping, jointing, etc regularly to our customers and educate them on making correct installations.

### **We understand that the usage of cable lugs, glands and cleats in domestic/commercial wiring is still very low in India. What is your view? Do you feel that usage of cable lugs, cable glands and cable cleats should be promoted actively?**

Yes, usage of cable lugs, glands and cleats is low in domestic/commercial wiring in India. It should be promoted actively, and authorities to make sure that cables are properly terminated by using correct type and size of cable glands and cable lugs. Cables should also be laid on cable trays by securing them with cable cleats. Proper use of fit-for-purpose product



and its installation will help to have trouble-free secure connection of cables in the installation, thereby preventing failures.

### **A-1 Electricals also caters to the global market. What are the major countries to which you export, and what are the major products exported?**

At present we are exporting our entire range of cable accessories to more than 39 countries worldwide. Far East and European countries are major export destinations.

### **Are there some high-potential countries/regions that are currently untapped?**

Countries like USA, and Russia where products like cable cleats, cable lugs, cable glands have high potential, are still untapped.

### **Please discuss the competency of your Rajkot unit, with respect to manufacturing capacity, testing facilities, R&D setup, etc.**



Our factory located in industrial city of Rajkot at Metoda GIDC is built over 8,000 sqft. By use of advance manufacturing techniques and machineries we can produce various types of non-ferrous metal components of 8 tonnes per month. We also have advance testing facilities with best testing equipments. Products manufactured are tested inhouse to assure quality for each batch.

### **Do you have any technical collaboration?**

At present, we do not have any technical collaboration with any other companies.

### **A-1 Electricals has completed nearly 15 years of service to the industry. How has been the journey so far, and what are some key corporate objectives that you would like A-1 Electricals to attain in the next (say) 3-5 years?**

With developments of quality products and excellent customer services where we provide correct solutions for cable accessories to our customers, the journey of A-1 Electricals has been wonderful.

Some key corporate objectives that we have set to attain in the next 3-5 years are: productivity of people and resources, mission driven core values, dealing with change and staying ahead of competition. ■