



# Quatro Automation Group

*Motion Control Solutions for the OEM*

Quatro Automation modifies thousands of motors to customer specifications and for our own designs. In the competitive marketplace in which we find ourselves, delivering products the way the customer wants them is the key to survival. Since 1985 the founders of Quatro Automation have been successfully modifying Oriental Motor step motors as well as dozens of other manufacturers.

Creating the infrastructure, creating work documentation, training people and delivering consistent quality is not easy. Dozens of our competitors have tried to copy our formula without success. Today 75% of our delivered products are modified to meet our customers demanding needs. Although we are not 9001 certified, we do meet the demanding standards. Our Fortune 500 customers have worked with our engineering, manufacturing and management for over 20 years to develop the processes, documentation and most importantly quality standards to meet the most demanding needs in industry. Those set forth by the FDA for our customers.

In the following pages we will describe some of the capabilities we currently offer. We are developing new applications and capabilities all the time. If you have an idea; share it with us, we probably can help in almost any feasible motor application.

## **Key Capabilities**

- Shielded Cable internally terminated (4, 6, and 8 lead)
- Encoders mounted (100's of line counts to choose from)
- Shaft modifications including flats and shortening
- Change motor bearings (increase thrust capabilities for instance)
- Add gears, pulleys and lead screws to shaft
- Custom linear actuators (OEM's only)
- Connectorize motor (insulation displacement, hand and automatic crimp pins)
- Quatro will warranty all products for one year for materials and workmanship

## **Interested in a "special?"**

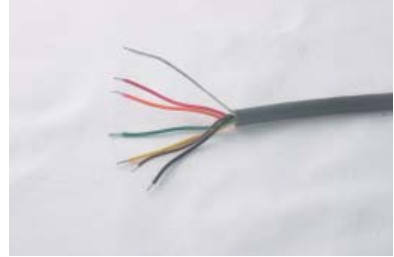
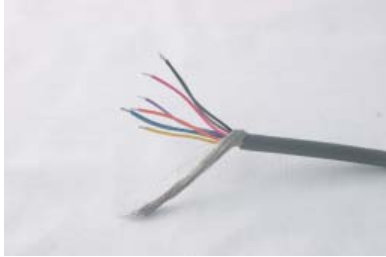
Specials are standard with us. We build subassemblies with motors, actuators, and other mechanical and electromechanical products. Many are based on motors, or lead screws and involve motion of some sort. Quatro will deliver a complete subassembly ready to take out of the box and into the OEM's machine.

Our methodology is based on fully documented manufacturing and test procedures, to insure that every part meets our customers specifications exactly, with no failures and no returns. Quatro will design a stocking program that minimizes the OEM's inventory, while guaranteeing that parts are always there when you need them.

The following pages will give you and IDEA of our capabilities.

## Shielded Cable

Shielded cable can simply be terminated in the motor with a floating ground, or the shield can be grounded to the motor casing for additional noise suppression in most motors. Custom terminations like turning a six or eight lead motor into a four lead is an option.



## Encoders

From low resolution to high, most standard encoder resolutions and a wide variety of manufacturers encoders can be mounted and tested at our facility. Ask for an encoder that we have high volume discounts and save additional money for you and your customer.



## Shaft Modification

Shaft modifications require special care to protect the vital bearings of the motor. Over the past 20 years Quatro has developed tooling that allows us to modify shafts while at the same time protecting the motor bearings. After tens of thousands of modifications we are proud of zero warranty failures.



## Change Bearings

As the only wearing part of a step motor and a key ingredient in all motors, standard bearings do not always fit the application. High side of thrust loads may necessitate bearings which the standard supplied bearings will simply not handle. A key reason for thrust bearings is to protect the motor mounted encoder.



## Shaft Attachments

A motor can be either directly coupled to the loaded or it may require special shaft attachments. Gears, pulleys, and lead screws are common ways to drive a load. Quatro has mounted tens of thousands of shaft attachments, and can pin them, set screw them (to a flat added to shaft), or bond them with high performance bonding agents.



## Connectorize the Motor

Every motor requires electrical power to make it run and the best way to supply reliable power is to add a quality connector to the motor. Over the years Quatro has added more connectors than any other modification to the motors we supply. Insulation displacement, as well as crimped pin type connectors are both popular. For high volume applications, we use automatic crimping machines for consistently high quality.



## Mechanical Sub Assemblies

Not every application requires a motor, or perhaps the motor is another part of the drive train for a given machine. Quatro manufacturers mechanical as well as electromechanical assemblies. Many involve lead screws, gears and pulleys.



## Linear Motion by USAutomation

USAutomation is the brand name for linear motion products designed and manufactured, or private labeled by Quatro Automation Group. These products are sold throughout the United States by Manufacturers Representatives and Authorized Distributors selected by our representatives in each geographic area. Quatro believes in sole distribution in all market areas, and forms a special working bond with those distributors. Quatro feels that the success of the sale of USAutomation products is a partnership that requires complete dedication on the part of BOTH partners. Currently we have selected areas available for representation and distribution.



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