



TO BE THE **BEST** IN THE WORLD

The quest to be the market leader in MV cabling has been there from day one for Components Express Inc (CEI). Ray Berst, who founded the company with his father 27 years ago, explains how CEI has become the world's No 1 in cabling, how they maintain their position and the decision to expand into enclosures.

HOW DID CEI START?

Its origins go back to 1992 when my father and I left our jobs in a cable company. We started two companies, Components Express to make cables and another company called Dynamic Sources, which imported components from Asia. We later merged the two companies, which saw us have a manufacturing establishment in Components Express and the ability to import products and build cables both domestically and overseas and that was really the start of the company as it is today.

HOW DID YOU GET INTO THE MACHINE VISION SECTOR?

Our initial focus was telecommunications cables, data distribution devices and patch panels. We worked for the major telecom providers such as Cisco Systems and Hewlett Packard, but the events of 9/11 saw the market crash and we needed a new direction. We had to regroup and pick one thing we were going to be great at and be the best in the world at. We had a group committee with our own suggestions. I was advocating to build patch panels, my father wanted to strictly import products from Asia, Steve Mott, CEI vice president, wanted to build cables for MV and we had another group that wanted to be a contract manufacturer. We all agreed Steve had made the best-case both market wise and capability wise. At that time we chose to be the best in the world at machine vision cables.

HOW HAVE YOU GROWN THE COMPANY TO WHERE IT IS NOW?

Having entered the industry, we realised quickly that cables were under-performing and it was a major problem in our industry. We pressed for a standard for testing cables, while other more established companies established were reluctant to adopt a test standard. Rick Ragnini, who was an outside contractor at the time, developed a bit error rate test – B.E.R.T. - for Camera link. When we started testing the cables, we realised our product wasn't working very well, but neither was anybody else's. The test made us open our eyes and improve our product. We were then able to work with the Camera link committee and show them there was a benefit to the testing and at that point we really gained a lot of market share in the industry. We were able to give our distribution channels and our partners the confidence that we could test the cables and make consistently reliable cables. We also developed a measurement tool, provided great cables and that gave them the confidence to buy our products.

I came from an aviation background where everything is mission critical. I see building cables the same as aviation. When CEI sells cables, we sell them through distribution channels so we don't know if our cables are being used for brain surgery or to inspect a label on a package, so our assumption is, it is always mission critical and someone's life could depend on it. We continue that philosophy now as last year we invested over \$60,000 in new testing equipment for further R&D to study the performance of



new higher speed cable assemblies (CXP-12). That constant testing provides assurances to our customers that every cable we build is tested to an industry standard or beyond.

IS THAT HOW YOU BECAME THE MARKET LEADER?

I believe so because at that time we didn't have a distribution channel. We wanted top tier distributors and we were able to go after them. We went to those distributors and they gave us the opportunity to be their cable supplier, as we were able to demonstrate the ability to validate cables which was a major problem for them.

WHERE ARE YOUR PRIMARY MARKETS?

We have approximately 30 distributors located all over the world. The market for us is larger in Europe and Asia than it is in the United States. Machine vision is very large in Europe and Asia, which is where we focus our efforts, but it's growing for us in North America. I really believe Europe will always be number one in machine vision sales.

WHICH SECTORS ARE USING THE PRODUCTS?

In North America we're really focused on automotive and military. In Europe, the market varies as we supply everything needed for machine vision cabling and power supplies plus we are now offering industrial camera enclosures. We are very strong with Camera link and CoaXPress. We've always focused on the high-end of the market. We have a new product coming out for USB 3 that should be exciting for the marketplace.

HOW HAVE YOU MAINTAINED YOUR POSITION IN THE MARKET?

A major element to CEI market position is our robust online cable configuration tool. Years ago, we recognized through our ISO program most of our returns were due to what we characterized as "sales errors". Our marketing manager, Jay Radcliff cured this issue by developing a website where our customers could easily configure a very complex cable assembly and download 3D models to fit in their engineering drawings. I think that's been a major key to our success.

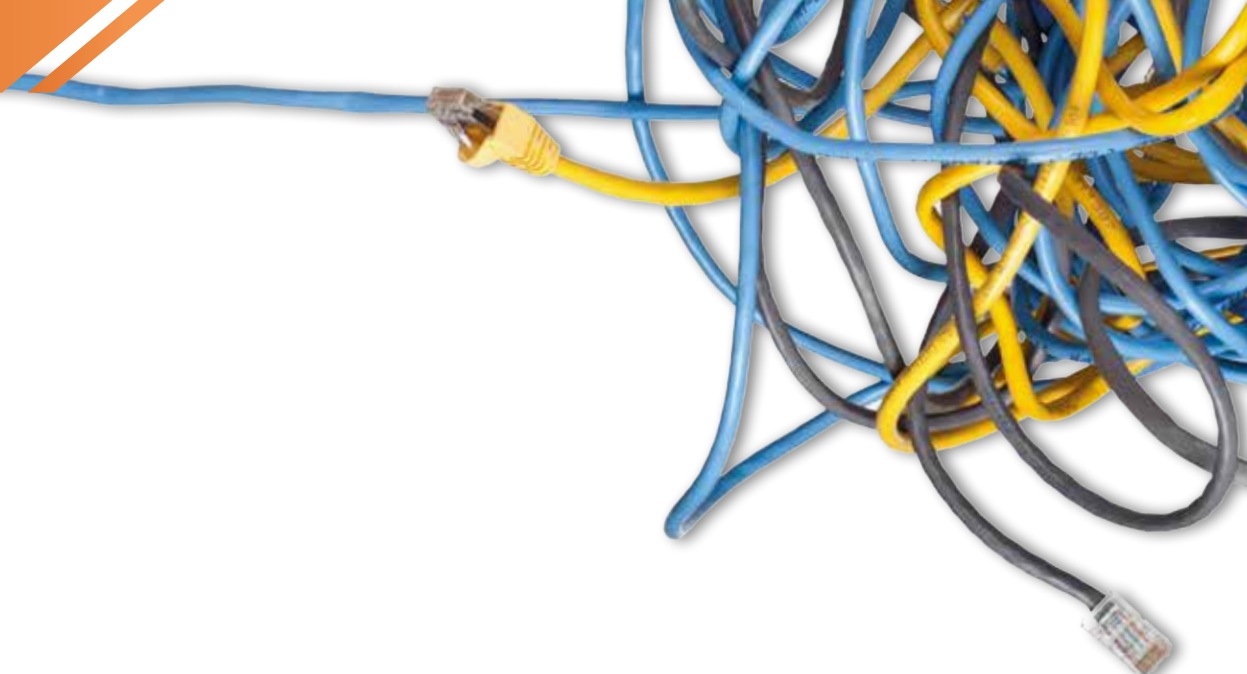
IS IT POSSIBLE TO CONFIGURE AND ORDER JUST ONE CABLE?

Absolutely. Our mantra is that our minimum order quantity is one. If you configure the product on our website, we provide a price to the distributor and they contact you. The distribution partners we have are very technical and knowledgeable so they may ask questions and look at the configuration and potentially come back with alternative solutions. There is a bit of hand holding in this industry and you do need technical partners to assist the integrators and end customers. One of our criteria was that our distributors have the technical resources necessary to assist our customers. It is important they know how to fit the pieces together, know what is required to have the best implementation possible. Our distribution partners are our greatest asset. They also stock the product, which means if you're 10,000 miles away, you don't need to pay freight for a \$25 cable.

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WHY HAVE YOU EXPANDED INTO ENCLOSURES?

We wanted to see substantial growth in our sales. We didn't feel that we could do that by solely providing machine vision cables to an already saturated market. We either had to build cables for a different market or offer additional products to the vision industry. We feel that enclosures are something that really needs help in our industry. There are good enclosures in the market, but we felt we could offer something that was different and much better. What we have done is to add connectors to the enclosures, which avoids the use of cord grips that ultimately leak. Given our knowledge of machining and cabling, we have the unique ability to provide the best enclosures in the industry.



WHAT HAS BEEN THE PROCESS?

Building an enclosure is quite a bit different to building a cable but we have a fully capable CNC shop. It took some time to get up and running because we wanted only brand-new equipment and the latest technology. As for the development and the designs for the enclosures, they have evolved based on specific design input from our customers, which is mostly from the automotive sector.

WHAT HAS THE IMPACT BEEN FOR THE BUSINESS?

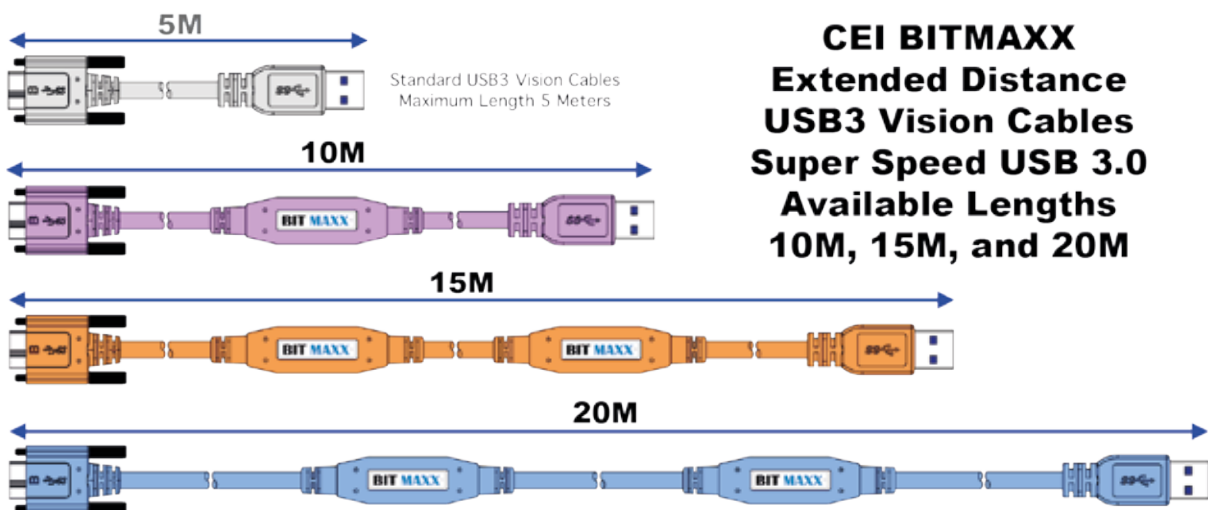
Enclosures are still very new and revenue wise it has added about five percent, but we would expect within five years it will probably be 50 per cent of our revenue. Most of the work now has been in R&D. We will also be working very hard to produce an enclosure configurator. It is more difficult than building the cable configurator because there are more variables, but this is something that will be a real benefit not just to the industry but also to our distributors.

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WHAT ARE THE CHALLENGES YOU ARE FACING?

The trade war is probably our biggest challenge right now. It's a real storm. The components we import from overseas have seen the tariffs go up by 25%. It's a tremendous problem for us. Almost everything has been impacted. I hope the trade war ends as quickly as it started, which seems to have been with a tweet.

We also see opportunity from the slow down as it's a very good time to finish programs and create new designs because people have time to discuss it. We have found over the last seven months a lot of projects we've been working on are closing and going to market. Right now, we are launching new products for CXP 12, M12, ethernet, USB 3 cables and many new enclosures. It has given us the breathing room we needed to finish a lot of projects.





WHAT TYPE OF BOSS ARE YOU?

I'm pretty hands on. I try to be in the office most of the time and if I'm not in the office, I try to be in front of a customer, especially with new product launches.

I did relax for a few years and our team ran it well enough that I only had to set metrics for existing programs. Over the past three years, I decided to be more involved. Launching new products is fun for me and it has allowed me the opportunity to get in front of customers and not just with enclosures but also with cables. I think it's important for customers to see me again as for several years they really didn't.

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WHAT KEEPS YOU MOTIVATED AFTER 27 YEARS?

It's an adrenaline rush for me to visit a customer and solve a problem. During a recent customer visit, I was invited to my customer's conference room, which they called the granite room. The owner of the company, who is an impressive character, said 'This guy is here to sell you something'. He then said 'Ray...go'. It was like a game show almost. I simply asked 'What is your biggest headache with cabling?' and they said 'USB 3. We must have a 20m USB 3 cable that is reliable'. I said, 'OK, we'll give it to you. It's already in the works'. Within eight weeks we delivered a working solution that they are overjoyed with because it was their biggest problem. It was fun but the greatest joy is that we solved a major problem for a very important customer. I love that part of my job and I have endless amount of pride when things like that happen.



HOW DO YOU SEE THE FUTURE FOR CEI?

Right now, I see us as a company that is offering the best cables in the world, but we want to make sure moving forward that we also manufacture the best enclosures in the world, which is a real team effort. When we feel we are the best in the world at enclosures, then we may go on to another accessory. So far, our growth has always been organic but the next thing may be organic or it may not. It may be acquiring another accessory company, who knows? For now, we want to be focused and make sure we have the best cables and enclosures in the world and then think about the next challenges and next hurdles. There is still room for us to grow in our existing markets. MV

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