Founded in 1969, Goodridge has evolved from a single-seat race team in Canada to a globally-recognized leader in Fluid Transfer Systems. The company’s first product line was aircraft braided steel hose and fittings for the UK F1 motorsport market. Success in the motor sports industry depends upon companies that provide accurate, high-precision components that can safely push the limits on the racetrack. And to safely push the limits has become not only the company’s mantra, but its secret to success.

Today, Goodridge products such as hose, fittings, brake lines, clutch lines, and fuel and oil line kits have made their mark in such racing venues as F1, World Rally, ILR, and NASCAR.

Through the years, Goodridge has expanded its product range in racing products, OEM parts, and the aftermarket line.

Goodridge products are manufactured to exacting quality standards. Machining operations are carried out on CNC machinery. An ongoing investment in lean efficiencies to improve manufacturing is part of the DNA of Goodridge. This, coupled with continuous product improvement and new product development activities, determines the company’s position in the marketplace.

Goodridge is headquartered in the UK, with global subsidiaries supported by a worldwide network of experienced distributors. The company has three North American facilities: Torrance, CA, Mooresville, NC, and Tijuana, Mexico.

**Finn-Power Crimper**

In order to meet an increasing demand for an expanding market in the OEM All Terrain Vehicle (ATV) market in its Torrance, CA facility, Goodridge began to look for a high-performance crimping machine with low maintenance and very fast cycle time. After a great deal of searching, Goodridge selected the...
Customer Profile

Continued from front cover

Finn-Power CC22 high-speed production crimper. The CC22 is a high-speed and efficient machine offering a variety of features and benefits including a versatile control system, a unique design which allows a variety of applications, and flexible changeover from serial to single-piece production. The crimping has a capacity up to 1-1/4” hose with 68 tons of force and 1,700 crimps per hour. The CC22 crimping machine maximizes productivity through an optimal force/speed ratio.

“Goodridge crimps both its production and aftermarket brake lines on the CC22. Given the nature of the product’s application, there is a zero tolerance to badly or poorly crimped brake lines. Goodridge has built its reputation on giving its customers 100% quality. The Finn-Power crimping machines give Goodridge that comfort level.”

Through the years, Goodridge has added numerous Finn-Power CC22 crimpers as production needs increased. Today it has 12 CC22 crimpers in its Mexico facility, four machines in Torrance, CA, and two in Mooresville, NC.

According to Manny Lagrosa, engineering manager at the Torrance, CA facility, speed is king at Goodridge. “The primary reason we have purchased the Finn Power CC22 over the years is its speed,” explains Lagrosa. “The machine is very fast. And when you consider that we produce over 1.4-million assemblies in our Mexico plant alone... the speed is very good. Our operators really like the speed. We have operators who have used other brands of crimpers and didn’t like them because the speed didn’t compare to the Finn-Power crimpers.”

Safety
Goodridge crimps both its production and aftermarket brake lines on the CC22. Given the nature of the product’s application, there is a zero tolerance to badly or poorly crimped brake lines. Goodridge has built its reputation on giving its customers 100% quality. The Finn-Power crimping machines give Goodridge that comfort level.

Ease of maintenance and reliability
Other qualities of the CC22 crimper that Lagrosa highlights is its ease of maintenance and reliability.

“They are really perfect for our operation,” continues Lagrosa. The CC22 is easy to operate. You touch the foot pedal, it closes, it crimps, and you’re done. Everything that we produce has a crimp. In the 1.4-million assemblies we produce in Mexico each year, there are at least two crimps in each assembly... that is a lot of crimping. Throughout our North American operations, there are millions of assemblies produced with multiple crimps. For high-volume crimping we like for it to be as simple as possible, and the CC22 does the job.”

Finn-Power crimping machines are produced by Lillbacka with 40 years of manufacturing experience of crimping machines. Finn-Power products have been developed to meet the requirements in a variety of different industries. They are used globally in such industries as hydraulic hoses, automotive components, construction equipment, heavy machinery, railroad, marine, electric power transmission, industrial hoses and tube, pipe, wire and cable industry, etc. Generally wherever metals, plastics, rubber, fiberglass, wood and ropes are joined or formed Finn-Power products are being used. Each year Lillbacka manufactures thousands of portable, benchtop and production model crimping machines, as well as hose cutting and nut crimping machines.
Tooling for Your Finn-Power Crimper

For nearly 45 years, Lillbacka has manufactured Finn-Power crimpers and tooling (die sets). During this time, the company has perfected the materials, manufacturing systems, and design of the dies sets. To provide the best result and finest crimped fitting, or any other product you manufacture with your Finn-Power crimping machine, you should use the original die sets. The original die sets provide your product the finish and accuracy you have come to expect with the Finn-Power product line.

While the die sets are manufactured from special materials engineered to be used in the Finn-Power crimping machines, there are certain considerations that fall into the hands of the operator of the crimping machine. Even the finest product can be damaged if not cared for properly, thus increasing the cost of operation and the risk of producing less than desired end product for your customer.

The dies sets should be maintained and clean, free from debris that can find its way into your Finn-Power crimping machine or in between the die and the product you are crimping. Dies should be wiped clean from any debris prior to placing them in storage. This way you will have always clean set of dies ready for use when you need them.

Frequent greasing intervals will extend the life of your investment. The crimp heads in Finn-Power machines generate hundreds of tons of crimping force. This force works the gliding surfaces. To minimize the friction and eliminate metal-to-metal connection between sliding surfaces, proper lubrication is required to assure maximum life to your machine.

Remember to clean your crimping dies. In order to maintain the high level of engineering that goes into building the Finn-Power machines, it is very important to keep all surfaces of your crimping dies clean and free of debris.

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Having die sets mixed in a storage box is the worst possible method to store your valuable tooling. Reason: The die sets are hardened to specification, perfected over decades of experience, and the sharp hard edge can be brittle and get nicked if tossed around in a box with other objects. In addition to the potential to damage, there is the possibility to lose a die segment, which renders the entire set unusable. Your Finn-Power crimping machine is a profitable tool only when it is crimping, not while you are searching for dies to complete a setup for next job.

The setup from job to job can be accomplished in seconds by using the Finn-Power die rack system to store die sets. In addition, the die sets remain in good order and clean in the individual die set holders. Various Finn-Power models have die racks that are engineered for the particular machine model. Some serve a dual purpose of holding the machine in a comfortable operating height. Others are installed to the side railing of the machine for quick set up and handling. The Finn-Power QC (Quick Change) tool is engineered to connect to the die set in the rack in order to allow the operator to pull the desired die set out and quickly install the die in the machine for the next job.

If you have multiple Finn-Power crimping machines, the same dies can be used in similar machines, which gives you added flexibility of scheduling the jobs on any machine. Even the crimping programs can be transferred via local area network (LAN), internet connection between plants or simply by use of USB memory stick. With the accuracy and repeatability of the Finn-Power machines and original Finn-Power tooling stored properly, you can realize higher productivity and profits.
Custom Hydraulics & Design: Innovative Solutions for Complex Connections

Custom Hydraulics & Design, Charlotte, NC, was established in 1985 by Kelly and Sherry Watkins as a hydraulic repair shop and a manufacturer of cylinders. Today the company has evolved into a full-line sales and service provider of fluid power components and systems. Custom Hydraulics & Design is a distributor for Eaton, Aeroquip, Duplomatic, Metalwork, and many other hose and component manufacturers.

“Approximately half of our business is hose and fittings, and the other half is comprised of sales of components, such as pumps, motors, valves, and accessories,” explains Adam Watkins, vice president.

Finn-Power Hose Cutting Machine
Custom Hydraulics & Design purchased a Finn-Power CM75 hose cutter in 2011. This hose cutting machine is designed to cut all types of hose up to 2” and 3” diameter, 6-spiral hoses. The 520/650 mm diameter blades operate at 3,000 rpm. The hose is pushed against the blade by a pneumatic cylinder. Piston movement speed can be quickly and easily adjusted to choose optimal cutting speed for each type of hose. Lower speeds are used with thick hoses to avoid overheating of the blade. The blade can be re-sharpened when necessary. The cutter has a built-in bin for the collection of cutting waste. “We bought the Finn Power hose cutter about three years ago,” says Watkins. “We use it for all our hose, including spiral hose, braided Teflon, etc. We do small lots and some production runs up to 1,000 units or more.”

Finn-Power Crimpers
When Custom Hydraulics & Design needed a crimping machine to enter the industrial hose market, the company once again chose a Finn-Power machine. “We purchased the 140UC for production runs and to allow us to crimp up to larger bore sizes in order to enter the industrial hose market,” explains Watkins.

The Finn-Power 140UC from Lillbacka is a high-speed, high-production model that has a crimping force of up to 320 tons. It quickly adjusts and crimps to an exact dimension and can adjust in .01 mm increments. The 140UC is designed with soft and even die movement, using a twin-pump hydraulic system which eliminates pressure shock during crimping. The 140UC crimping machine is designed to handle large jobs with optimal crimping force, speed, and efficiency. These models are full-scale production units. What distinguishes them from the competition are their larger die opening, strength, and speed. These production units can accommodate small and larger assemblies. Their large pass-through head design makes them ideal for crimping elbow assemblies, flange pieces, and oddly-shaped parts.
Other features of the 140UC include:
  • Versatile control system
  • Fast, efficient, and accurate crimping
  • Flexible change over from serial to single-piece production
  • Smooth operation through fast approach combined with slow crimping
  • Operated by push button, pedal (optional), back stop device, or using semi-automatic function

“It is a very accurate machine. If we have a run of 600 assemblies, there is no difference between the first, the middle, or the last assembly crimped. The 140UC is very consistent.”

“Approximately 50-60% of all our material goes through the 140UC,” says Watkins. “And 100% of our production runs go through the crimer. It is a very accurate machine. If we have a run of 600 assemblies, there is no difference between the first, the middle, or the last assembly crimped. The 140UC is very consistent.”

Watkins also likes the 140UC’s programmable backstop. “It allows us to set up and run with consistency. The 140UC is also very quiet in operation. It has a nice auto off feature that shuts the machine off when not in operation. The part counter is also another feature we like, both on the hose cutter and crimper.”

Quick Change Tool System
Another Finn-Power crimper feature that Custom Hydraulics & Design likes about the 140UC is the Quick Change Tool System (QC). This allows the entire die set to be changed in one easy operation. The pins on the QC Tool engage the QC holes in the dies. As the master dies open/close, the die segments are released from/fastened to them. The die segments are held to the tool by a magnet. The set then can be stored in the QC storage rack. In this way, the segments are kept in complete sets and are always used in the same order.

Most recently, Watkins purchased a Finn-Power 32MS crimper. The 32MS crimper is simple and straightforward in construction, and easy to operate, and can be effortlessly moved to where they are needed. “The 32MS helped us win some business earlier this year,” explains Watkins. “One of our customers is currently using our 32MS for their production on a temporary basis. We will be very happy to have it back in our shop.”
New Products

Large-Opening, Side-Feed Machine

The Finn-Power side-feed machine line is now expanded to large pipe and hose production. The side-feed machines have gained popularity over the years in complex applications where feeding the pipe or hose product through the opening just is not feasible or impossible. The need for larger side-feed machines has increased with the latest dramatic developments in pipe technology. More use of large and long pipe and hose is developed in conjunction with the newly-developed pipe and hose technology. Finn-Power is meeting the challenge with the new series of large-side feed machines. The SP5000 has proven itself as a durable and reliable machine that “can go anywhere”. The side opening of the SP5000 is nearly 8”, making it a great choice for crimping 6” pipe or hose in situations where the product must enter the machine from the side opening. The side opening and closing technology pioneered by Lillbacka in the Finn-Power SP5000 machine is proving to be key to successful quality crimping when one needs to “go anywhere” to make the joint by crimping.

Large-Crimp Diameter Machines

The Finn-Power King Crimper machines are available to a maximum opening of 25 ½”, and with crimping tonnages from 800/1200/2000 metric ton. There is hardly anything that cannot be produced with Finn-Power crimping machines. Finn-Power has the most comprehensive product line in the industry from small hand pump machines to high-tonnage large diameter solutions. No wonder that Finn-Power machines are the industry’s choice.

The Finn-Power King Crimper series machines are successfully used in various applications from calibrating large pipes for large fitting blanks, making reduction of pipe diameter, and crimping a fitting to a pipe or hose. The speed and the accuracy provides the foundation for the number of applications suitable for the King Crimper series making a large diameter, high-tonnage product, complete with a single hit.

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New Products

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We invite you to compare your swaging process to the King Crimper single hit to finish the product. You will find pay back on the machine in months...not years. Increased productivity is the key ingredient when looking for increased profits. Using old methods and expecting new level of profits is only a dream. With Finn-Power King Crimper, this dream becomes a reality.

Bar Code Reader
Taking the guesswork and labor out of the set-up process of any machine is most important element to improving the productivity of the operation. The Finn-Power UC control has the capability to be connected to the company network to retrieve up-to-date crimp data. The crimp data can also be entered to UC controls via USB memory stick or just by manual programming into the control. Naturally, any time using the control for anything else than to process crimping activity is wasted non-productive time.

The bar code reader option eliminates manual searching for the program from memory, thereby increasing the time available for actual production. In the work queue mode several different jobs can be produced one after another with minimal time for any set up between jobs.

Always correct program for assembly to totally eliminate waste and increase profitability.
When your production equipment requires service, machine manufacturer’s ability to respond quickly and effectively is as important to the reliability of the equipment’s performance. Lillbacka USA believes its “local factory trained guy” approach to service response is priceless as to value added when deciding to purchase and maintain Finn-Power equipment.

Lillbacka USA has established a network of independent service providers with Finn-Power factory-trained technicians for service and maintenance on all Finn-Power equipment. Lillbacka USA regularly holds training classes and certification testing in its Orlando, Florida headquarters for these independent service providers conveniently located in various locations throughout North America including Canada, Mexico and many states within the USA.

Continuous growth in sourcing new service providers is a key goal in offering service as close to the customer’s business as possible. Service and maintenance response has been successful in each the customer’s location or a service provider’s place of business.

Recent additions to the network of service providers are in Florida, Georgia and the Carolinas. Service providers will be sourced in the Northwest States of the USA as well in the near future. Lillbacka USA works closely with the service providers to assure proper sourcing of parts as needed for service and maintenance. Headquarters facility in Orlando, Florida carries most of the needed components for service and maintenance and works with customers directly to sell and deliver the parts needed in the service or maintenance call.

In addition to service training, Lillbacka USA technical applications staff is also available directly to design and manufacture special application dies for its customers when the application requires custom engineered dies, process or both. Finn-Power’s reputation in machinery in the various industries it serves includes top quality construction, reliability, dependability, repeatability and accuracy.

Your Finn-Power machine receives the assistance from a strong support network when service and maintenance is required. The continually growing network of factory trained service providers is ready to respond quickly and effectively. I am available at your convenience to provide further information specific to your location.

Dennis Peplow: 847-301-1300 ext. 605.
Lillbacka Hosts Customer Appreciation Day & Golf Tournament

Lillbacka USA hosted an Open House and Customer Appreciation Day event on Friday, February 21 at the corporate facility in Orlando, FL. Customers and Lillbacka representatives had the opportunity to view new products and the vast Lillbacka product line, and learn from the technology presentations about new opportunities to increase their profits. Food and beverages was available throughout the afternoon and evening.

On Saturday, February 22, the First Lillbacka Open Golf Tournament was held at the Eagle Creek Golf Club. While no Bubba Watson emerged from the group, there were some excellent shots recorded, and all players enjoyed the afternoon.

On Sunday, February 23, Lillbacka personnel were available for special demonstrations and test runs.
Customer Appreciation Day & Golf Tournament
The Finn-Power SP5000 is one of the most unique crimpers on the market to date. It has a crimping force of 500 tons to handle any thick wall, industrial hose, or pipe. Its crimping range is 0 – 210 mm. The SP5000 has an open-side feed frame that accommodates hoses up to 6” with large end-fitting configurations to orientate into the crimper from the open side channel without any restrictions or removal of dies.

The Finn-Power SP5000 has been engineered and constructed to operate in an outdoor environment. The UC controller unit that operates the crimper is sealed from the elements.

The applications for the SP5000 are for pipe and hose field service work. Industrial hose can be constructed at oil field and/or fracking sites. Other applications, such as pipe lines, can be joined and constructed next to the pipeline field trench.

Lillbacka USA
1629 Prime Court, Suite 400 • Orlando, FL 32809
Phone (847) 301-1300 • Fax (847) 301-2562
Email: sales@liilbackausa.com • www.lillbackausa.com