



Interview with

Thomas Dietrich & Regina Felix

Product Development Team, DARCO (Europe)

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DARCO produces and markets orthopaedic aids and shoes worldwide. As demand grows, expertise proves invaluable for the innovation of high performing aids for the foot and ankle and in order to create effective solutions for healing foot ulcerations. Alexandra Panizza, Chief Editor of the E-Journal talks with Thomas Dietrich and Regina Felix about product development and the multi-faceted perspectives the term R&D entails underroof here at DARCO Europe.

Editor: What encompasses the role of a product developer here at DARCO?

Thomas Dietrich: It's complex; we oversee multiple projects simultaneously and are responsible for quality control through the manufacturing process. We also engage the professionals who use our products and based upon the latest findings, we formulate new product designs to meet their changing needs. We compile ideas, construct prototypes and assess feedback from test cases. Working with local universities has been extremely worthwhile. We can develop and test ideas at the academic level and have measurable defined, outcomes. We can afford to take chances; either it's a worthwhile discovery or it stays on the drawing table. We also keep a close eye on the medical device market place and seek to capitalize on the latest technological advancements for the betterment of our products. We organize, plan, and implement product rollouts. Throughout the entire process we collaborate closely with a diverse network of disciplines; Sales, Marketing, Purchasing, Logistics and HR. It's very rewarding.

Editor: What product is particularly close to your heart?

TD: I have to say, the sole construct and the adaptable insoles are areas where we can make positive inroads. We know, and the healthcare professionals know that no two feet are the same. Therapeutic footwear addressing the needs of postoperative care or ulcerations on the feet, can be an immensely broad topic. How can one create a multifaceted, effective healing shoe that can service the majority of the population in need? This is exactly why adaptable insole systems are very much in demand today. Over the past few years we've launched some interesting products here at DARCO with respect to adaptability and versatility. Customized insole systems can accommodate different

situations while obtaining the end goal of redistributing the weight. It fortifies the surgical procedure and promotes faster healing which gets patients back on their feet and makes surgeons happy.

Editor: What of your latest designs; which do you believe holds the greatest potential?

TD: My clear favourite here is the Relief Dual® Off-loading Shoe. In the beginning, the first Off-loading Shoe actually allowed the forefoot area to float completely free of any contact with a sole. It was the standard back in back in those days, but not without controversy within the medical community. Particularly patients suffering from sensitivity disorders or polyneuropathy, they'd develop dysfunctional gait patterns and incorrectly used the shoe; rolling over the pivot point and tipping over the edge of the sole often created further injury. The DARCO OrthoWedge forefoot Off-loader changed that. Our design offered a rigid reinforced sole supporting the whole foot. The wedge shoe principle also had some short-comings and innovation was inevitable. We've shifted away from the plateau design with the Relief Dual® Off-loading Shoe. This "newcomer" has proven to be very effective and extremely well received within the medical community and surprisingly with patients as well. Especially in conjunction with the insole systems, I alluded to earlier. The low profile shoe intuitively enables a proper walking pattern and the rigid shank is sandwiched into the sole spanning the entire surface. Now add the features of a negative heel and a rocker sole and this shoe can diminish pressure points significantly as well as reducing bending moments during the standing phase of walking. The Relief Dual® Off-loading Shoe has already made itself a good name among medical professionals and orthopaedic shoemakers. It's also an improvement with regard to patient compliancy and winning the acceptance of the insurance companies is certainly a great achievement for us.

Editor: Product Design vs. Quality Management is a key point in your work – Where does it come to the fore?

Regina Felix: "Form follows function" as they say. This is especially true for the medical device manufacturer. One good example is our new MECRON 3-part-Plus Knee Brace. The 3-part Knee Brace is manufactured at our production facility in Hainichen, Germany. Having access to this facility allows us to develop prototypes faster and realise ideas within a relatively short pipeline. The orchestration of material procurement, production work-flow and keeping an eye on the strict legal requirements; as well as producing an appealing product for the patient, is all part of the challenge. Our new production site at Hainichen near Leipzig is expanding in the coming year and I see this as a major opportunity for advancing product development and design for DARCO. The term "Made in Germany" is something to be proud of and it enables us to flex our creative muscle.

Editor: 3D printers are a hot topic these days. How are you employing this technology?

RF: Through our membership with the hg DARCO Group, we have expanded our options considerably; enabling us to create and design right here on site. We have now the tools,

the tech and the expertise to innovate at will. By utilising computer-based programs, pressure measuring devices and the 3-D printer in the development phase of “hatching” solutions, we’ve dramatically increased our flexibilities overnight. We’ve always worked closely with technicians and biomechanical institutes on form and function and now we can create a 3-dimensional prototype for review with the colleagues involved in the process. This tool is really unbeatable for cutting edge innovation.

Editor: How do you come up with ideas for new products?

TD: There’s a broad variety of sources. Of course we observe trends in the market place and new developments. We also actively participate in over 40 trade shows a year. In addition, we are a member of eurocom e. V. which is a European Manufacturers Federation for medical devices. But most importantly, we work directly with doctors, medical institutions, retailers and of course, we’re always open for feedback from the consumer; customer visits bring valuable insights into our creative process. We listen to what the foot specialists need and to the healthcare practitioner’s experiences with regard to problems and with successes. We here at DARCO are also very active in sharing knowledge; we value the exchange with international institutions and associations. But, it all starts right here; it’s not unusual to see me walking through the corridors at DARCO wearing test products; this is my best input.

Editor: How do you decide which ideas to implement and which not?

RF: Well, not everything that gets set to the side is unimportant. We set priorities of course and as Thomas pointed out earlier, the need for adaptable solutions is in demand. So the key term “Modular” will be without a doubt a focus for DARCO in 2019. This was also behind the inspiration and the rapid implementation of our new Relief Insert® Walker. With modular features in mind, we designed a two-in-one solution that’s shaking things up a bit in the industry and we’re receiving positive recognition for it. Other considerations and constraints include costs and feasibility. We know that creating a product that provides a quality solution must also be a product that saves time and perhaps money. For example, the DARCO Posterior Splint which can significantly shorten the time spent in the operating room. We have some interesting projects in the pipe and we’ll see them through with patience and attention to detail, only then does one reap the rewards. We can all look forward to 2019 and to what the R&D department at DARCO has in store.

Editor: Thank you for your time and the interesting conversation!

