

FOOTWEAR TECHNOLOGY

Contradictions in golf footwear

by Mel Cheskin

Holes in golf are what the sport is all about, especially when it comes to holes-in-one. However, holes in golf shoes on wet fairways or when fishing a wayward ball out of the lake are not normally desirable features in golf footwear. At least, that has been the case up to now.

Bursting onto the scene

At the 56th annual PGA Merchandise show in Orlando this year, Geox—a leading footwear manufacturer in Italy and the second biggest firm worldwide in the casual-lifestyle sector—entered the golf world. Making its entry into a sports category that calls for cutting-edge technology and high-performance equipment is a new challenge for the company that has built itself a strong reputation as “the shoe that breathes”. Geox has designed a fully breathable golf shoe that allows perspiration to evaporate from the foot through a breathable leather upper and, more importantly, through a technologically advanced “metal net” incorporated in the outsole which allows feet to breathe through the sole and prevents water entering the shoe.

It uses a waterproof, breathable membrane applied along the entire sole, supported by a “techno net” material, which protects the membrane from external bodies and enhances transpiration. The two breathable sole components are encased in an external polyurethane and rubber anti-slip and scratchproof frame forming a shock-absorbing unit. The end result is NET system, a sole comprising three elements: the membrane, the supporting net and the external frame. This combination has allowed Geox to use a unique technology platform with actual holes in the outsole, which allows perspiration to evaporate properly while keeping the foot dry, even in the most critical weather conditions.

Geox has entered the golf market with two shoe lines for men and women. The ProTech line for professional golfers offers full-grain leather,



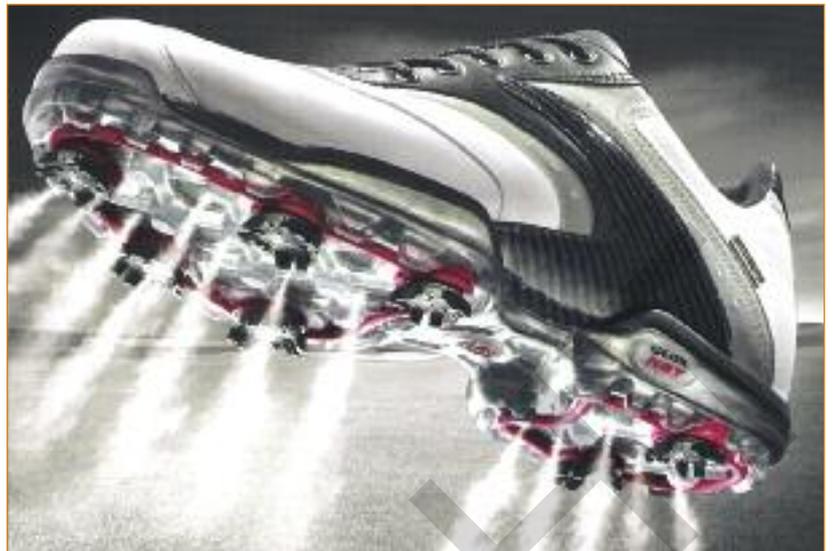
pre-treated during the tanning process to offer water-repellency, durability and softness. Another important feature is the Proflex spike by Trisport which is combined with a Fast-Twist insert system to give maximum adherence and make replacement easy. The other line from Geox is Fusion, which represents a union between style and functionality for the weekend player. Both collections use the breathable NET System technology designed to create a real splash in the marketplace without getting anyone's feet wet.

On and off the green

One of the long-standing contradictions in golfing footwear has been the choice of metal versus soft spike versus spikeless cleat system, all of which are now on the market. Most new sport equipment innovation starts with the professionals and works its way down through the ranks to the enthusiast. However, soft spikes and spikeless golf shoe sole systems have been instigated from the masses up. How far up? Well, we have it on good authority that after 30 years of perfecting removable plastic spikes, only 25% of top PGA tour players actually use them. For optimal stability and grip, the elite still prefer to play with metal spikes. All players at other levels must play with either a removable plastic spike, known as a soft spike, or play in one of the many forms of moulded soles with varying types of cleat formations. Metal spikes are, in fact, banned at almost every club worldwide unless the same course is used for PGA tour championship play.

Several new forms of golf soling are now available and these conveniently take the golfer from the course to the clubhouse and beyond, without necessitating a change in footwear. Golfskins, from the makers of Cleatskins, have introduced a golf shoe accessory that quickly slips over the shoe sole to extend the life of the cleats and improve mobility and safety on asphalt, concrete and other hard surfaces. It also provides a sealed barrier to keep dirt and grass out of the clubhouse, home and car. Originally inspired by the galosh or snow-overshoe, Golfskins are made from Skintek rubber, a formulation made from a compression-moulded rubber material that is flexible, machine washable and slip-resistant. Now the player can convert their golf spikes into street shoes by simply slipping the Skintek rubber cover over any design of sole spike.

Among the numerous spikeless formations entering the golf shoe market is a new design from Puma called the Quill. Each Smart Quill is made from moulded TPU and is intentionally positioned for customised traction throughout the swing. As a cluster, the quills work together to provide fairway traction as well as being eco-friendly. Red TPU studs are placed along the



Geox's breathable golf shoe range works by allowing sweat on the bottom of the foot to evaporate through the sole of the shoe.

 Geox

perimeter of the outsole for added stability and traction at key pressure points affecting the swing. The asymmetrically designed outsoles of the left and right shoes are intentionally coloured differently to show the peculiarity of the design. Each foot supports the full swing with its own biomechanical design. The shoes are also available in a "lefty" version, with the opposite design pattern and corresponding colouring. The fiberglass sole plate and lack of traditional cleats makes the Quill one of the lightest tour grade shoes on the market.

Swivelling soles

Another contender in the US is a shoe produced by U-Go United Golfers, which is designed to radically change the wearer's game. Designed and tested in Germany, it is advertised as "the shoe with the turnable sole". With many brands emphasising a firm and stable foundation for the golf swing, U-Go focuses its technology on swing balance and reduction of torsion strain.

Instead of adopting the conventional lower anatomy paradigms of anchoring the feet to the ground and applying torque and resistance to the hips, knees and ankle joints during the golf swing, U-Go incorporates a swivelling plate in the forepart of the lead foot to counter the pressure. This new dynamic allows the rotational torque, built up in the backswing, to release through the front foot, reducing torsion and stress throughout the body. The company calls this biomechanical action Free Release. Judging by the many reports, although the shoe changes the learned body biomechanics of the golfer, it allows players with back, hip and knee injuries to prolong their playing careers considerably. (For a detailed review of the concept, see WSA Sept/Oct 2006.)

Importance of the golf shoe

Footwear has become an important piece of equipment for golfers of all skill levels. Since the

dawning of the biomechanical era, which took hold with a vengeance in golf (albeit later than in other sports), high-tech designs, features and materials have been providing a litany of performance points for golfing footwear. How important is performance in golf? No less of an authority than Tiger Woods has often talked about the integral role footwear plays in the performance of highly competitive golfers. Tiger Woods, who recently rejoined the PGA Tour after extensive knee surgery in 2008, made his point by winning the Arnold Palmer Classic in dramatic fashion in March 2009.

Designed with input from the talented golfer, Nike's Air Zoom TW 2009 is a Tour grade shoe in full-grain leather with the built-in performance benefits of lighter and more durable materials. One of the essential features of the Air Zoom TW 2009 is the lateral stabiliser feature located above the outsole, which prevents extreme supination during weight transfer and provides optimal balance to accommodate a more powerful swing. The lateral stabiliser is critical during follow through, when weight is moved off the centre of the shoe's footbed and pressure is transferred to the lateral upper portion of the shoe, an area that has not been adequately addressed to withstand significant lateral forces until now. Nike Golf has also introduced two updated footwear styles engineered specifically for women: the Nike Air Brassie II and the Air Summer Lite II. In warm weather conditions, the Air Summer Lite II features breathable mesh that supports cooling and promotes comfort during play.

Meanwhile, the adidas Powerbrand 2.0 and FitRX are two examples of the latest ways adidas would like golfers to look at their footwear. The original Powerbrand, introduced several years ago, made golfers realise the important role shoes play in creating a firm and stable foundation for their golf swing. New Powerbrand features several key technologies that work together to harness the force a golfer's body generates during the load phase. Powerbrand II incorporates a chassis with new power-geometry, a "grip zone" integrated footbed surface and THiNtech low-profile sole design. The combined benefits of these latest technologies from adidas help maximise the energy transfer on the downswing, through impact, and allow the golfer to move swiftly and powerfully through the swing rotation to a full finish.

Another new model from adidas offering custom-comfort technology is the FitRX with an adaptable footbed feature called 3DFitfoam, which adjusts to provide a highly personalised fit. In addition, the ankle collar topline of the shoe is surrounded with a memory foam technology called Geofit, which outlines the foot.

ECCO Golf from Denmark continues its aggressive push into performance golf footwear



with the introduction of the Four Dots line with proprietary direct-injection polyurethane process that ensures durability, waterproofing and comfort. ECCO, with its more casual comfort reputation, emphasises basic shoe features such as an anatomical last that encapsulates the foot and high-performance supportive Hydromax leather uppers. Technical features such as a Triple-Density TPU outsole with stability islands and a nylon/steel reinforced shank help to bring traditional shoe styling into the 21st century.

Cleatskins slip over golf shoes allowing the wearer to move to and from the course with ease. They protect spikes and floors, while providing slip resistance on solid surfaces.

 Cleatskins

Style counts

Although there is little question that performance features and high-tech materials drive the market in golf footwear, look is still all important. Today's younger power golfer prefers to wear an athletic style of golf shoe that looks like a basketball or running shoe. Then we have the more recreational, older player who still follows tradition and likes to wear the saddle-oxford look. Most brands cater to both segments of the market and even cross over, offering high-tech biomechanically tested shoes with the casual shoe look. With industry leaders FootJoy, Nike and adidas being hard pressed to maintain their market share by smaller, aggressive brands such as ECCO, Callaway and Hi-Tech, we can expect continuing innovation well into the future. 🌐

Nike's Air Zoom TW golf shoe with lateral stabiliser.

 Nike

