



A-hunting we will go...for boots

Rocky's Retraction boot featuring a Dynamic Sole that conforms to varying terrain.

 Rocky Boot

From hunting moose in Alaska to tracking impala on the Serengeti, hunters have several needs in common when it comes to footwear - comfort, protection, warmth and dryness. There is no such version as a hunting boot, only a variety of outdoor boot constructions made for varying rugged conditions, from freezing forests to wet swamplands. Thanks to footwear makers such as Viking Footwear in Norway, Rocky Boot in USA and Le Chameau in Ireland, there's plenty of excellent choices to keep the feet warm, dry and injury free.

Hunting either necessitates some foot contact with wet conditions or total immersion up to the knees in streams of water. Waterproofed footwear therefore is regarded as a classification rather than a feature in hunting boots. The longevity of the original hunting boot construction, namely vulcanized rubber, has lived a remarkable life span and is still popular today known under the names of Pac Boots, Wellington's, Duck Boots or Muck Boots. Nothing wet, moist or damp ever penetrates vulcanized rubber. Full-vulcanized rubber boots and shaft, or rubber uppers with leather or Cordura shafts are still the standard choice for the experienced wetlands hunter. Both forms

of vulcanized boot have smooth, grippy outsoles for rock climbing or Vibram-style lug soles for wading in marshy ground.

Vulcan's process

There are two types of vulcanized rubber soles, both of which are heated to adhere to the upper. Where a complete rubber boot is constructed (sole, upper and shaft) the sole is either cut from a slab (or sheet) or pre-vulcanized in a unit form.



The Charger boot from Rocky is heated with a rechargeable battery which can be turned off or removed when extra warmth is not needed.

 Rocky Boot

Layers of rubber are used as cushioning or fillers between the upper and the outsole. A strip of rubber foxing is glued around the sole and upper, which may be rubber or another material of choice. The shoes are then placed on metal lasts in a vulcanizing oven (autoclave) and cured for approximately 90 minutes. The upper, sole and foxing are bonded together in the heating process, thus making the construction impenetrable to water. This process is known as vulcanized build-up.

In the direct vulcanizing process, the lasted upper is placed on a metal last and prepared for moulding. An unvulcanized blank of rubber is added to the mould cavity, that has a base plate and side moulds. The mould and metal last are heated to soften the rubber, which then takes the shape of the cavity. The rubber is vulcanized in the mould, thus bonding the sole permanently to the upper. Direct extruded rubber soling is made by the same process. Full-vulcanized rubber boots may be simply lined with brushed nylon tricot or more functionally lined with a membrane if the boot is to be breathable (in which case small holes are punched through the rubber) or Thinsulate insulation. Duck hunting or trout fishing waders (such as Hodgman Duck Hunting Waders) are merely extended vulcanized sheet rubber or PVC

coated nylon from the boot shaft up to the hips or chest. There's a new wrinkle to the old Pac boot now especially useful for hunters...scent-free natural rubber. It has been determined that animals with super-sensitive olfactory senses can smell a rubber boot at a hundred paces. If the advantages of twenty-first century weaponry are not enough to aid the modern hunter, we can now add odour-free vulcanized rubber to hide the scent of man. Gore-Tex Supprescent membrane also blocks human odour.

Conventional leather shoe making, such as welted and cement constructions, are regarded as more comfortable than fully vulcanized footwear. Thanks to the innovative 3-D OutDry technology from Nextec of Italy, fully stitched footwear uppers can be laminated with a continuous membrane that fully covers all seams and water penetration holes. With hunters, this construction may be uncomfortable, unhealthy and perceptibly cold during long term use in the autumn and winter seasons. OutDry is one solution to this problem, providing protection and comfort over a range of use and climate conditions. Laboratory tests and field trials help to prove OutDry's high performance rating in all footwear applications.

The whole inside surface of upper, including textile trimmings, seams and metal application (such as shoe eyelets) is perfectly sealed, without any room for the water to stagnate to increase the weight of the footwear and eventually cause unhealthy bacteria buildup. Upper waterproofness is guaranteed over 5m of water head pressure.

According to SATRA TM 47 Test Product Report, water vapour permeability is very high (over 5.0 mg/cm/h), aiding foot comfort. Upper and hose fabric absorb little water vapour (less than 75 mg after 265 min, as recommended for the 'optimum comfort') indicating that wearer's feet and hose remain dry during a normal day's wear.

The OutDry membrane's hydrophilic properties guarantee moisture absorption, reducing overheating due to humidity and mitigating against cold chills that are the result of dew-drop formation. The OutDry membrane prevents sweat saturation. Conversely, when outside temperatures rise, any excess sweat is pushed out due to the increased water vapour gap between the inside and the outside of the footwear, thus insuring a 'comfortable interior thermal environment' regardless of changing outside climatic conditions.

Additionally, leathers used in 'hunting



Viking's Trail waterproof boots.



type' designs, such as nubuck and full-grain calf, can be waterproofed with a polyurethane coating or treated with a water-repellent treatment. One thousand denier Cordura nylon in a camouflage pattern is used extensively in hunting boots as an upper component reinforced with leather overlays. The Viking Elk model has a 1000 denier Cordura upper with the Ultimate 100% waterproof Gore-Tex liner, which is ten times more hardwearing than previous Gore-Tex liners. Double-layer mesh quarters are used to minimise shrinking and provide superior drainage and breathability.

Itasa brand produces a 19-inch Expedition Snake Protective Boot in heavy duty Cordura and leather upper using AquaPlus waterproof, breathable membrane with double padded pigskin collar.

High-legs, soles and socks

Neoprene is another excellent material used in hunting boots. New Duck's Unlimited Wild Trax Neoprene Boots from Mad Dog Gear provide waterproof comfort and super traction. These 17-inch knee-high boots feature nylon overlays on the shaft and vamp for added durability. They are both durable and lightweight, offering 100% waterproof performance combined with the warmth and comfort for which neoprene (closed cell rubber foam) is recognised. A rugged toe-cap and heel reinforcement has been added, along with long-lasting, scent-free natural rubber.

For traction in mud, snow and other challenging conditions, most brands rely on versions of the traditional Vibram lug sole, but not exclusively. Simms' wading boots offer a studded sole feature called Korkers that are carbide-tipped steel

spikes embedded in an AquaStealth 5 10 rubber outsole for superior traction on hiking trails. Mad Dog's new self-cleaning, high-traction DOG outsole, grips when it needs to and sheds debris for a good 'bite' on the next step. For optimal support in a rugged boot, a custom moulded or premoulded orthotic can offer the wearer better support and stability during long hours of trekking through woods and over undulating ground. Most hunting boots do not have a removable insole to accommodate an orthotic but many boots can offer that option.

Cold weather presents an interesting challenge in terms of heat loss and moisture evaporation for hunters exposed to the wilderness for days on end. Sock brands such as Thorlo, Smartwool and Seirus already produce specific winter socks offering acrylic and polyester fibre blends to wick moisture away from the skin, with added wool areas for warmth. Seirus also makes a neoprene liner for winter boot insulation.

Thinsulate, by 3M, has come a long way in solving many of the problems presented in insulating cold weather hunting boots effectively. Its unique blend of polyester and polyolefin fine denier fibres springs back to its original loft therefore taking less of a compression set than pile or felt and retaining those air pockets that are so important for keeping feet warm. Thinsulate insulation absorbs less than 1% of its weight in water, so it keeps warm even in damp conditions inside the boot.

Cambrele, well known for its durability and wicking properties as a shoe lining, has been combined with DuPont's insulation material Thermolite to produce a proven cold weather performer - Cambrele Extreme with Thermolite. This product has excellent breathability and moisture management qualities to keep feet warm and dry even when sweating. The blend of soft, durable microfibre is exceptionally flexible and effectively blocks the escape of radiant body heat to retain maximum warmth at minimal loft. Engineered to inhibit growth of bacteria and most moulds and fungi, Cambrele Extreme helps to keep footwear hygienic and fresh even when worn for days on end. Recommended insulation standards are measured in grams per square meter (gsm) for footwear. Insulation at 200 gsm is considered minimal for cool conditions or for high activity levels where the wearer generates a lot of body heat. Hunting boots vary from 200 gsm up to 1,600gsm in the Viking range. 🌐

Mel Cheskin