

Profiling

About blade profiling

While in motion, a skater wants to maximize and maintain the skates' glide, so the friction between the blade and the ice should be minimized with an accurate blade profile. However, excellent grip is necessary for the transfer of power in acceleration, shifting and stopping.

The blade profile should be selected on the basis of your skate size and skating preferences; the bigger the skate, the more of your blade should be touching the ice in order to disperse your weight evenly.

A longer radius profile (where more of the blade is touching the ice) is beneficial as it provides a higher top speed, though it reduces the ability to make quick turns. A shorter radius blade profile results in more friction because it lowers the amount of contact between the blade and the ice, causing more pressure to be put on the blade and leading to quick turns.

Blades with combi-radius profiles provide the best of both short and long radius, and are a lot more versatile than those with one fixed radius. Combi-radius blades have a smaller radius at the front of the blade for better acceleration, and a longer radius at the back of the blade for better balance and speed. These result in faster turns, and smoother and more aggressive crossover skating. The most used combi-radius profiles in ice hockey are the Zuperior and Detroit profiles; the most used single radius profiles are 13 & 14 ft (3.96 & 4.27 m).

Another factor is that the factory profile of 26-32 mm of blade to ice contact is too short when children start skating at 4-10 years of age. The young player's balance and agility is developing, and therefore it is difficult to learn to skate well. Effort is spent on trying to stand up instead of developing a good skating posture and stride. Contouring a radius rocker to 12-13 ft, which gives more blade contact (54-56 mm to the ice), will make learning to skate more effective and fun.