

HINTS, TIPS & TECHNICAL SPECIFICATIONS

THE 120-GRADE ABRASIVE CYLINDERS NOW A "PRO" STANDARD



The sophisticated ceramic-based abrasive used in SkateMate® is now supplied in 120 grade as standard. The decision to go for 120 grade was made to bring about the best possible honing action. A finer abrasive will naturally mean a bit more work, but the finer the abrasive, the finer the edge.

That pretty well says it all.

The ceramic-based abrasive used on SkateMate PRO cylinders is ALMOST as hard as diamond. Don't be fooled by claims that ceramic abrasives ARE as hard as diamond, or have "diamond-like hardness" because an abrasive is either a diamond abrasive or it is NOT!

SkateMate® is a tool!

As adaptable and as universal as SkateMate is, don't forget that it is still a tool that requires some degree of skill, though to a very small degree. Here are some general hints & tips about how to get the most out of your universally adjustable SkateMate when (re)sharpening your blades. But the most valuable tip of all is to combine a little patience with a little practice.

Variation in Blade Width and ROH (Radius of Hollow)

One of the primary goals in designing SkateMate was to make it work on just about any blade with any ROH on the market. After almost 30 years of development (and not a few years of trial and error), the present SkateMate model does just that.

FROM FLAT TO CONCAVE:

- **SPEED SKATES** and the new "Tour Skates" (now popular in Scandinavia, Holland, Germany, and Austria) have very thin blades, less than 1.5 mm [<0.075 in.] and no ROH at all. Despite this, SkateMate will sharpen such blades, because the abrasive cylinder will flatten out enough so that the difference between the edges of the blade and the oval cylinder is less than the size of the abrasive grains embedded in the hard ceramic layer. That this is true can be easily demonstrated (see Figure 1 and then try the MARKER PEN TEST below).
- **DANCE & FREESTYLE BLADES** may vary in width from 2.54 to 3.82 mm [0.10–0.15 in.] with ROHs from 9.53 or 12.70 mm to as much as 15.75 mm [0.42–0.62 in.]
- **FIGURE-SKATE BLADES** have a similar width range, usually, but the ROH may vary all the way from 12.7 to 25.4 mm [0.50–1 in.]!
- **HOCKEY-SKATE BLADES** also have varying dimensions. Regular blades may vary in width from 2.55 to 3 mm [0.10 to 0.11 in.], with ROHs from 9.5 to 19 mm [$3/8$ "– $3/4$ "], although a 12.70 mm [$1/2$ "] ROH is the most common, the new RETROFIT KIT will perfectly maintain modern $3/8$ " ground blades. Goalie blades have any ROH that the big guy with the fierce face mask likes. The modern-style $3/8$ " ROH [and even $5/16$ th] for hockey skates etc. can now be sharpened much better by ordering the NEW RETROFIT KIT [see also **NOTE**, below].

FLAT-GROUND BLADES

HOCKEY & DANCE

FIGURES & FREESTYLE

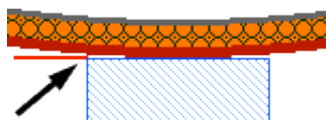


FIG. 1. Thin flat blade

Grain size: >0.02 mm. Gap at arrow: <0.020 mm. Edges are honed, nonetheless. A truly flat abrasive would cause the blade to 'dig in' and wear duller.

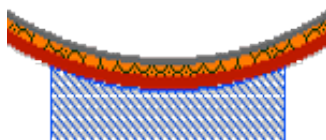


FIG. 2. Deep blade hollow

Unflexed round cylinder fits 12.7 mm [1/2"] ROH perfectly. Blade width: 2.79 mm [0.11"] The RETROFIT KIT is best for 5/16-3/8 inch ROH.

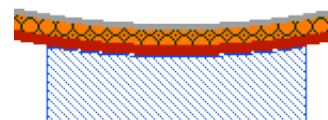


FIG. 3. Shallow blade hollow

Flexed oval cylinder fits blade hollow perfectly from 25.4 mm [1"] ROH and up to 50 mm [2"] ROH. Blade width: 3.82 mm [0.15"] Good for goalies.

Which for What ROH?

Generally speaking, if you don't know what ROH you have, try the test described below. In fact, for best results and to learn how best to use SkateMate, try this procedure in the beginning anyway!

MARKER PEN TEST:

- Take a colored marker pen and apply it to your skate blade along the entire hollow.
- Open your SkateMate enough to prevent damage to the Telfon-coated guide and put it on the blade.
- Close SkateMate carefully so that it sits firmly (does not rock from side to side) on the blade, yet is loose enough to move up and down. The best method is to close it until tight and then back up just a bit, so that it will slide snugly but freely.
- Slide SkateMate up and down the blade once [**DO NOT PRESS DOWN: let the tool do the work!**] and note how much and where the marker pen color is removed.
- If no color has been removed, press slightly harder. The new cylinders are somewhat stiffer than the previous ones.
- If color begins to be removed from the bottom of the hollow rather than at the edges, your ROH is bigger than the SkateMate cylinder. You will need to apply still more pressure. (See Fig. 3. Start over from the beginning above.)
- When the color of the marker pen begins to disappear at the edges, then you are honing your blade correctly.
- It should take no more than 4–8 runs up and down your blade to remove all or most of the color.
- When all the color has disappeared, so have your dull edges. If there is still some color at the bottom of the hollow, see "Retaining Your Special ROH" below.

And, of course, there are hundreds of ROH dimensions used between these figures depending on the individual skater's own ideas [or — more often — the trainer's or the coach's ideas]. Luckily, SkateMate will sharpen them all with a little 'practice'. Remember: SkateMate is not meant to replace your professional grinding job, it is meant to extend the time interval between grindings.

Retaining Your Individual ROH

Furthermore, it is clear that the SkateMate cylinder may sometimes not 'reach' all the way down into the hollow of deeply ground blades [ROH < 9.52 mm or 3/8 in.], but it will always hone the edges sharp enough to skate on just the same. The difference is very minute, but after sharpening such blades with SkateMate for extended periods, it is recommended that they be reground on a correctly shaped wheel—that is, if such a precise and accurate hollow shape is of importance to your skating. And, assuming you can find such a wheel, and someone who knows how to use it. So, if you have an ROH that is 3/8" or smaller, why not order the RETROFIT KIT—then you can skate for years and years without ever having to set foot in a costly sharpening shop.

NOTE: The grinding wheels in shops remove a lot more steel from your blades than SkateMate ever will, so, with SkateMate, your blades last a lot longer. Grinding wheels are exactly what they are, they 'grind' away the steel—and quite a bit each time. The only real reason to 'grind' blades is if you have been walking to the rink with your skates on, and no ROH and no edges are left. SkateMate does not wastefully 'grind' off your blades, it merely removes small nicks and 'hones' your existing edges to ultimate sharpness (and often better than any wheel).

Modern Tapered Blades [Warning!]

Some modern skate blades have been given a taper from front to back and/or from top to bottom (non-parallel sides, i.e. the blade width varies. Also called side-honed, see below.). The reasons for this are legion—mostly subjective as far as I am concerned. **These blades are extremely difficult to grind correctly even on conventional bench machines (even tricky on computerized ones) and are very difficult to resharpen using SkateMate. If you have purchased such blades, be extremely careful**

about where and by whom you get them sharpened. **FACT: The vast majority of grinding shops these days cannot even center a regular skate blade correctly. This leads to one edge being higher than the other. Yet another reason for buying SkateMate! Because it can even fix that.**

(*SKATER'S EDGE SOURCEBOOK*, p. 46.):

* Side-honed: The lower portion of the blade . . . is tapered from top to bottom, theoretically making sharper edges possible. Because the sides of the blade are no longer parallel, precise sharpening can be difficult.

* Tapered: The width of the blade is tapered, or becomes narrower, from front to back; designed to increase maneuverability and control in figures.

My opinion is that, unless you are a champion skater with your own special workshop and paid crew in tow, it might be better to refrain from buying such 'theoretical' complexities. At most public rinks, the highly fluctuating temperature [and thus the hardness] of the ice itself has a far greater effect on maneuverability and control.

Stainless Steel and Super Steel

The question often arises about whether SkateMate can sharpen stainless steel or super-steel blades, or super-hard speed skate blades. In the first place, any metallurgist will tell you that stainless steel is not as hard as 'standard' hardened steel, nor does it keep an edge as well. Sharpening stainless steel is absolutely no problem for SkateMate even in the case of brittle speed-skate blades.

The special ceramic-embedded abrasive used in SkateMate's cylinders is the second-hardest material on the face of the earth. Only pure diamond is harder. The hardest steel there is hasn't a chance to put up any resistance what-so-ever.

GOOD LUCK, AND GOOD SKATING!

REMEMBER: DO NOT PRESS DOWN!
(or, if absolutely necessary, only VERY slightly)
If in doubt, use the felt-pen test.

If you have any questions, don't be afraid to ask!
This e-mail goes straight to the inventor himself.



**for homepage & true testimonials
from many satisfied customers.
IN ENGLISH ONLY!**

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