Chef'sChoice®

A Passion to Create the World's Best®

Understanding Euro/American and Asian Style Knives

Whatever you choose, there is a Chef'sChoice Sharpener to maintain better than factory sharp edges on all your knives.

OVERVIEW OF EURO/AMERICAN AND ASIAN BLADES

Over the years, Europeans and Americans have designed knives to prepare foods common to their own culture and heritage – namely heavier foods including a wide variety of meat and more fibrous vegetables. As a result these knives are generally heavier, thicker, and sharpened with sturdy 20 degree facets (40 degree total angle) as shown in Figure 1.

By contrast, Asian knives have been lighter, designed primarily for seafood and less fibrous vegetables. Consequently many of the Asian knives are thinner and sharpened with the more delicate 15 degree facets (30 degree total angle) as shown in Figure 2.

Some Asian blades are very specialized, for example the traditional Japanese blades, which are formed as single sided blades with a single 15 degree facet. Sharpened correctly they are exceedingly sharp.

In recent years, as cultures and foods of the eastern and the western countries have become more ubiquitous and available on a global scale, the knives commonly associated with those foods also have become widely available. Many European and American brands are selling Santoku blades and certain traditional European styles are now sold under Asian brands.

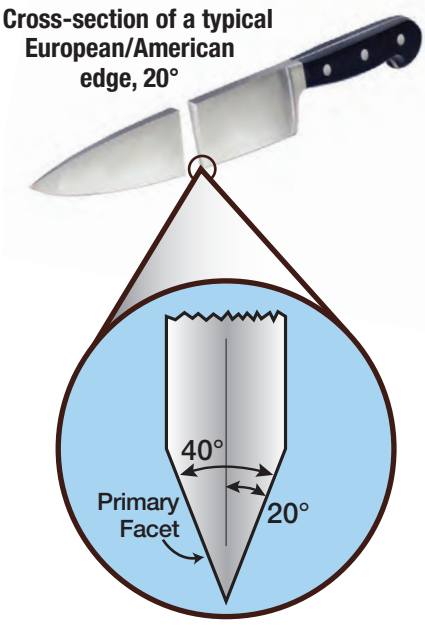

Figure 1

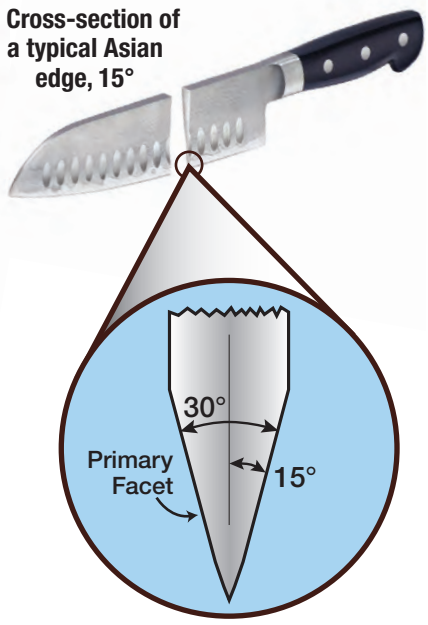

Figure 2

EUROPEAN/AMERICAN BLADES (COMMONLY 20 DEGREE FACETS)

European/American fine edge blades are universally double beveled and are sharpened on both sides of the blade. Most of the Euro/American knives, shown on the right in Figure 3, have a thick cross-section designed for heavier work. However, the associated conventional paring, fillet and utility blades are smaller and have a relatively thin cross-section well suited to their intended application.

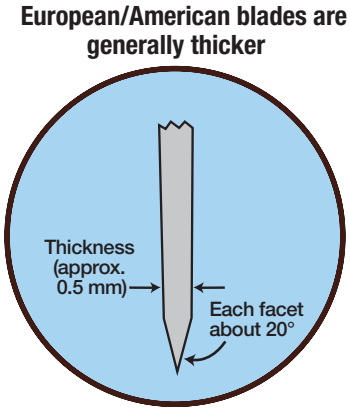

Figure 3

CONTEMPORARY ASIAN KNIVES (15 DEGREE FACETS)

The most popular Asian blades; the thin, light weight Santoku and Nakiri for example, are generally double faceted (sharpened on both faces of the blade)as shown in Figure 4. Occasionally Santoku knives are sold with single facets but these are not readily available in the United States.

There are other heavier double-faceted Asian knives, the Deba and Gyutou, popular in Asia, which are used for chopping hard vegetables, for tailing and filleting fish and for meat. These are basically Asian chefs knives designed for heavier duty work. While these heavier knives are commonly sold with 15 degree facets, you may wish to sharpen them with 20 degree angles. The Chinese cleaver is included in this class.

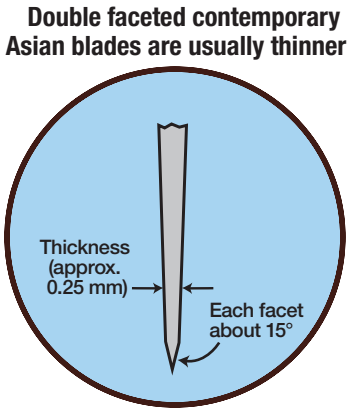

Figure 4

TRADITIONAL JAPANESE KNIVES (15 DEGREE FACETS)

The traditional Japanese knife is single beveled and has a large Primary Blade Bevel, as shown in Figures 5 and 6, along the lower section of the front face of the blade. These are sold as either right handed or left handed versions. The large wide Primary Blade Bevel is ground, commonly at about 10-11 degrees and serves to deflect the food slice away from the blade as it is cut. The most popular example of this type blade is the sashimi knife also known as Yanagi and Takohiki. This lengthy, thin slicing blade is ideal for preparing very thin slices of raw tuna or salmon.

The back side of this blade is commonly slightly hollow ground. A very small single cutting edge facet of about 15 degrees is created below the large Primary Blade Bevel along the front face of this type blade as shown in Figure 5 and enlarged in Figure 6, in order to establish the geometry of the cutting edge. An even smaller cutting microfacet (barely visible to the unaided eye) is customarily created at the edge on the back side of the blade to enhance the sharpness of the finished edge.

When sharpening the traditional Japanese blades, you should always follow the sharpener's instructions carefully. Always sharpen this style knife at 15 degree (Asian style) unless it is a thicker specialized blade designed for heavy duty work.

Single beveled traditional Asian blades are thinner and sharpened primarily on one side

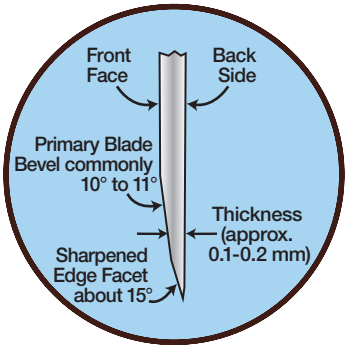

Figure 5

Cross-section of the tip of a typical factory sharpened traditional Asian knife edge, magnified 50x (right-handed)

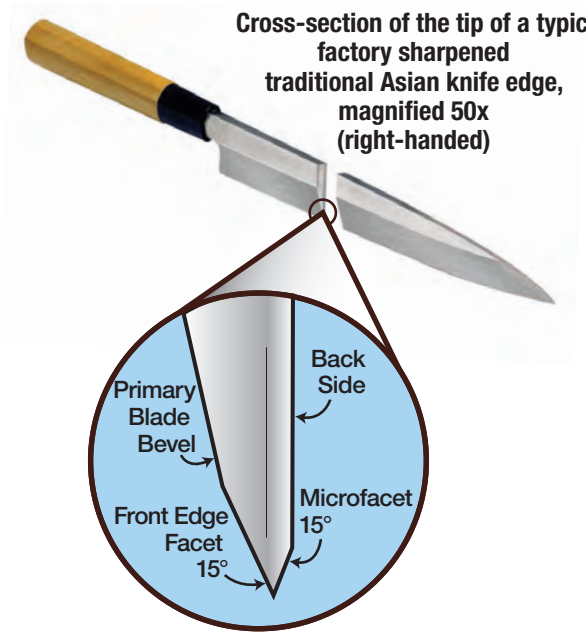

Figure 6

NEWEST TRENDS OF EUROPEAN KNIVES

An interesting recent phenomenon is the broad adoption of the 15 degree edge by the leading European knife manufacturers for their traditional European knife lines. In part, it is a recognition that consumers prefer the smaller 15 degree edge angles, which they perceive as being sharper; although both a 20 degree edge and 15 degree edge can be made with equal perfection. It is true that the 15 degree edge exhibits less friction while cutting, particularly when accompanied by a thinner blade geometry. Thus, the user perceives it to be "sharper."

Anticipating a growing consumer preference for the 15 degree edge, Chef'sChoice introduced, over the past few years, a number of professional electric and manual sharpeners for Asian* style knives, including sharpeners specifically designed to convert knives with traditional 20 degree edges into 15 degree edges.

These sharpeners go one step further, and actually improve the 15 degree factory edge by addressing one of its key disadvantages; its lack of durability. Since knife edges typically fail by the edge folding over, the amount of metal supporting the edge is a key factor in determining its durability. Since, by definition, a 15 degree edge will have less metal supporting it than a 20 degree edge, it will fail more quickly. The multi-stage, Chef'sChoice sharpeners however are designed to create the 15 degree edge with a multi-bevel gothic arch geometry that provides more metal support for the edge, therefore making it more durable. Now, the consumer can have both a 15 degree edge that is sharper than a 20 degree edge and an edge that is also more durable.

* Chef'sChoice® Diamond Hone® AngleSelect® Model 1520, Trizor XV® EdgeSelect® Model 15, Diamond Sharpener for Asian Knives Model 315S, Diamond Hone® Sharpener Model 4623, Pronto® Diamond Hone® for Santoku/Asian Knives Model 463 and Diamond Hone® for Santoku/Asian Knives Model 435.
Note: Model 15XV (15 degree) is designed to develop better than factory quality edges at 15 degrees and to convert 20 degree edges quickly to 15 degrees.

QUESTIONS AND ANSWERS (Q & A)

Q. With the recent move to 15 degree edges by leading European knife manufacturers, are my old 20 degree European knives obsolete and in need of replacement?

A. Absolutely not, if those knives have served your needs well in the past, they will continue to do so in the future. They can continue to be maintained with Chef'sChoice sharpeners specifically designed for them such as the Model 120 or Model 320. However, if you would like to convert some of those knives to a 15 degree edge, Chef'sChoice offers the ideal solution with the Trizor XV Model 15 sharpener. The company also offers other models suitable for this purpose (see Footnote on page 3).

Q. Historically, European style knives were typically manufactured with a 20 degree factory edge; why are they changing to a 15 degree edge now?

A. In part, it is a recognition that consumers prefer the smaller 15 degree angle edges, which they perceive as being sharper. Although both a 20 degree edge and 15 degree edge can be made with equal sharpness, it is true that the 15 degree edge exhibits less friction while cutting, particularly when accompanied by a thinner blade geometry. Thus, the user perceives it to be "sharper."

Q. What particular cutting tasks are best performed by the smaller 15 degree edge? The 20 degree edge?

A. If you are using a given knife for heavier cutting or chopping it probably is best sharpened at 20 degrees. If you use a small or medium size knife only for light work such as paring, peeling, or light slicing you may prefer to sharpen it at 15 degrees in order to take advantage of its increased sharpness.

Q. If I have knives with the 20 degree edge and knives with the 15 degree edge, and want to keep the original factory edge angles, do I have to buy two different sharpeners?

A. No, Chef'sChoice offers professional electric (Model 1520) and manual (Model 4623) knife sharpeners that can be used to resharpen both kinds of edges. However, if you already own a Chef'sChoice sharpener designed for 20 degree edges, you may want to add a manual sharpener, such as the Chef'sChoice® Pronto® Model 463 designed to sharpen your 15 degree edge knives.

Q. What stays sharper longer, the 15 degree edge or the 20 degree edge?

A. Because the 20 degree edge has more metal supporting the edge than a 15 degree edge, it resists dulling (the edge folding over on itself) longer.

However, by sharpening your 15 degree edge knives with Chef'sChoice® multi-stage sharpeners, the durability of the 15 degree edge is significantly enhanced. Chef'sChoice sharpeners create a multi-bevel "gothic arch" shaped edge that resists the edge folding over and is therefore more durable. The consumer can have the best of both worlds: a sharper and a more durable edge.

Q. Do all Santoku knives come with a 15 degree edge?

A. No, some Santoku style knives are manufactured with a 20 degree edge.

Q. How can I tell if the knives I already own are 15 degree or 20 degree ?

A. The best way to tell is by asking the manufacturer of the knife. As a general guide, European/American knives manufactured before 2010 have 20 degree edges while Asian style knives have 15 degree edges. However, there are exceptions to this rule of thumb.

It is important to remember that the original factory edge is lost after the first few uses of any knife. Subsequently the edge of the knife is determined by the type of sharpener that is used. Chef'sChoice electric sharpeners provide better than factory sharp edges for both 15 degree and 20 degree edged knives.