

Technical Description:

Franmara Curved Stainless Steel Waiter's Corkscrew

A corkscrew, also known as a wine opener, is a tool invented to aid in the removal of corks from the necks of wine bottles. There are several types of corkscrews that exist, the most common of which are: (1) traditional or screwpull, (2) waiter's, (3) winged, (4) lever, and (5) electric or automatic, as shown in Figure 1. This report will focus on the technical specifications of the Franmara Curved Stainless Steel Waiter's Corkscrew, including a description of its five main components and their uses.

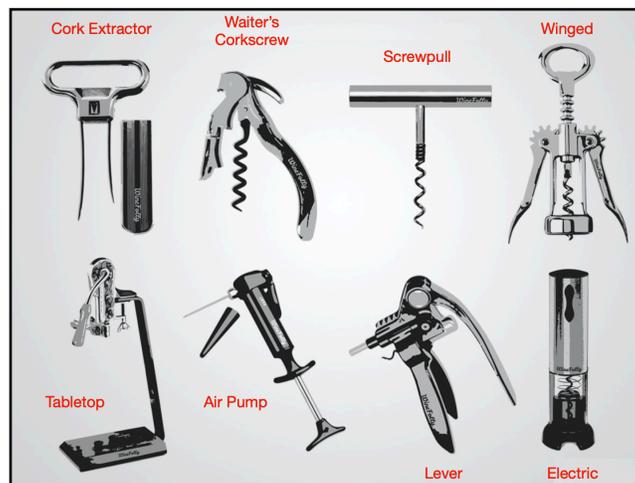


Figure 1: Types of corkscrews [1]

Background

The waiter's corkscrew, also called the "waiter's friend," was originally named because it was small and light enough for waiters to carry around in their aprons and easily open bottles at diners' tables [2]. The tool is also sometimes referred to as a wine key or sommelier knife because of its resemblance to a foldable pocket knife. Despite its origination in the service industry, the waiter's corkscrew has become one of the most common household tools for wine opening.

There are many contributing factors to the popularity of the waiter's corkscrew over other types of wine openers: it is easier to use than a traditional screwpull which requires brute force, more portable than a winged or lever corkscrew, and much more affordable than an electric wine opener [3]. The waiter's corkscrew also includes a few features not found in all other wine openers, including a foil cutter and bottle opener, which are explained in more detail in the next section.

Parts and Characteristics

Waiter's corkscrews come in a vast array of designs, shapes, and materials, depending on the manufacturer. The cost, quality, aesthetic, and even ergonomics of each corkscrew can vary and it is often up to purchasers what attributes are important to them when purchasing such a tool.

Despite their differences, all waiter's corkscrews contain the same five components: (1) the body, (2) foil cutter, (3) worm, (4) fulcrum, and (5) bottle opener, as depicted in Figure 2.

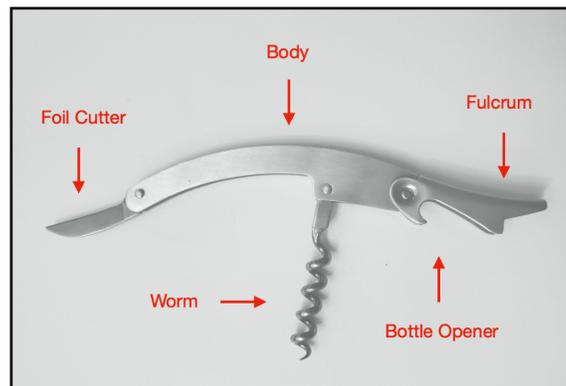


Figure 2: Parts of the Franmara Curved Stainless Steel Waiter's Corkscrew

Body. The body or handle of the corkscrew is referred to as such because it is the “home” to which all other components are attached and where the user holds the tool. The body of the waiter's corkscrew is where one will find the most variance between tools — it can be made up of wood, plastic, metal, or a combination of materials. The shape of the body is occasionally straight, but more often has a curvature which makes it easier to grip.

The body of the Franmara Curved Stainless Steel Waiter's Corkscrew is as the name suggests: curved in shape and made of stainless steel. The Franmara corkscrew is 18.5 cm in length with all components extended, and when folded it is 11 cm in length and 2.75 cm at its widest point. The handle is 1 cm in width at one end where the foil cutter is hinged, widening to 2 cm where the worm is hinged, and tapers off to 1.5 cm in width where the fulcrum is hinged at the other end. (See Figures 3 and 4.)

The worm and fulcrum both fold downward to sit against the smooth inside curve of the body and the foil cutter folds upward to sit inside a 3.5 cm long slot on the top curve of the body.

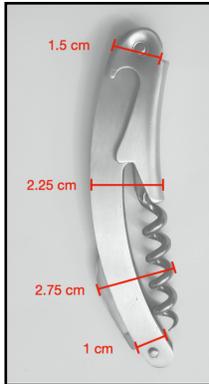


Figure 3: *Folded corkscrew with dimensions*

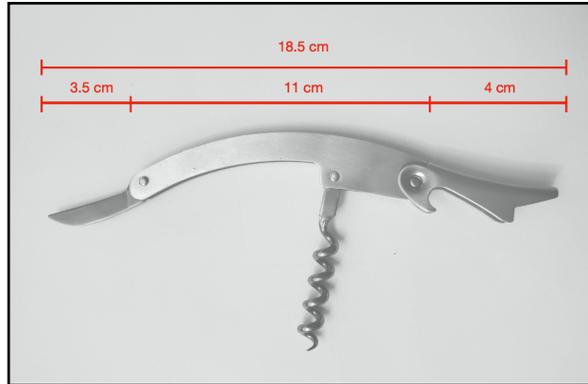


Figure 4: *Extended corkscrew with dimensions*

Foil cutter. Each waiter's corkscrew comes equipped with a small knife, called a foil cutter, to help remove the foil around the neck of a wine bottle and expose the cork. As mentioned above, this component is attached to the body by a hinge and can be folded in.

The foil cutter on the Franmara corkscrew is 3.5 cm in length. It maintains 0.75 cm in width, when laid flat, for a length of 2.5 cm before tapering off to a point. (See Figure 5.)

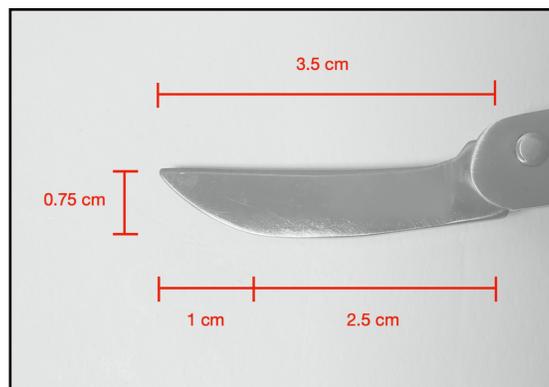


Figure 5: *Foil cutter with dimensions*

Worm. The worm is the primary component necessary to removing a cork from a wine bottle, and thus is the one tool included in almost all types of wine openers. The worm is made up of cylindrical length of stainless steel that is coiled up in to the shape of a helix.

The worm component of the Franmara corkscrew is 6 cm in length from hinge to tip, with the coiled portion making up 4.5 cm of that. The coil itself is 1 cm in width, made up of a 0.25 cm wide cylindrical piece of stainless steel. (See Figures 6 and 7.)

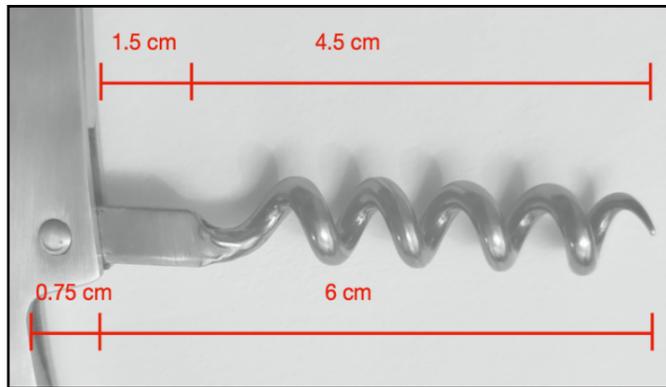


Figure 6: Worm with dimensions, horizontal



Figure 7: Worm with dimensions, vertical

Fulcrum. The fulcrum is the component of a waiter’s corkscrew that differentiates it from other types of wine openers, and is also referred to as a bootlever, foot, or leverage hinge. The fulcrum consists of a hollowed piece of material (allowing it to fit around the worm when the corkscrew is folded) hinged to the end of the body. The fulcrum is “notched,” creating a ledge that allows it to rest upon the lip of a wine bottle and provide leverage.

Fulcrums are either “single-levered” or “double-levered.” On a double-levered waiter’s corkscrew the first fulcrum helps to partially remove the cork from the bottle, and the second fulcrum (hinged to the first) provides more leverage that allows the cork to be fully removed.

The Franmara corkscrew has a single-levered fulcrum. It consists of a 0.125 cm thick piece of stainless steel that has been folded down on both sides, and is 1.5 cm wide across the top. It is 4.25 cm in length when extended from the body of the corkscrew. From the side view, the fulcrum is 1 cm wide at its smallest point, widening to 1.5 cm where the “ledge” is located. From that point, the fulcrum tapers from 1 cm to 0.5 cm. The ledge is 1.5 cm from the end of the fulcrum and is 0.5 cm in width. (See Figures 8, 9, and 10.)

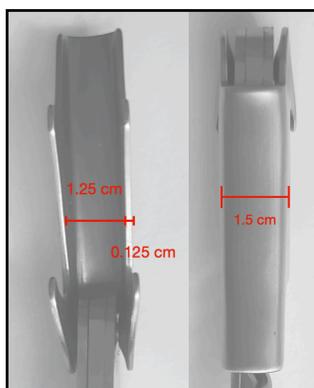


Figure 8: Fulcrum with dimensions, top and bottom

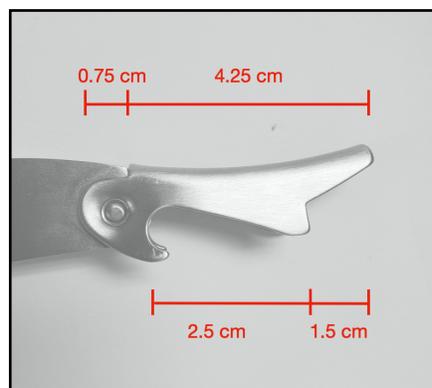


Figure 9: Fulcrum with dimensions, horizontal

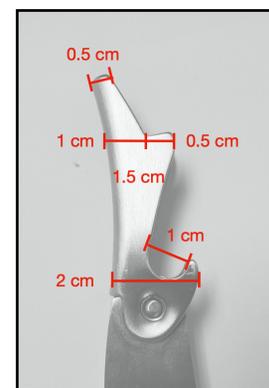


Figure 10: Fulcrum with dimensions, vertical

Bottle opener. A bottle opener, while not necessary when opening a bottle of wine, is an included component on most waiter's corkscrews. It eliminates the need for second tool, when opening other bottles, such as beer or soda. Bottle openers can be found in various places on the corkscrew, but is typical part of the fulcrum.

On the Franmara corkscrew, the bottle opener is located on the underside of the fulcrum. Just past the hinge, the bottle opener curves upward to create a hook-like shape, 1 cm in width, that fits easily around the cap of a bottle. (See Figures 9 and 10.)

Process

The process of using the Franmara Curved Stainless Steel Waiter's Corkscrew to open a bottle of wine is the same as any other single-lever waiter's corkscrew and quite easy to do once one becomes familiar with its various parts.

To use a single-levered waiter's corkscrew, perform the following steps, as shown in Figure 11:

1. Use the foil cutter to slice the foil just under the lip of the bottle
2. Remove the foil that was just cut to expose the cork
3. Insert the tip of the worm into the cork and twist the corkscrew until the worm is fully inside the cork
4. Position the fulcrum so that the ledge sits comfortably upon the lip of the bottle
5. Hold the fulcrum against the bottle and use your other hand to lift the body of the corkscrew
6. Fully remove the cork from the bottle and unscrew it from the worm

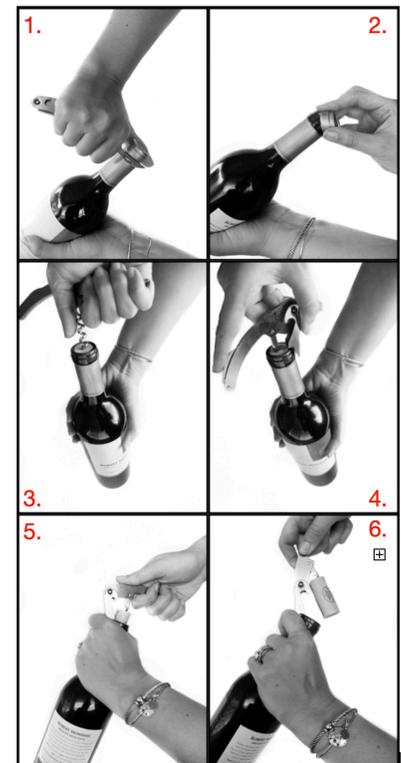


Figure 11: Using a waiter's corkscrew [4]

References

1. "What's the Best Wine Opener?," Wine Folly, last modified August 7, 2015, <https://www.winefolly.com/tips/whats-the-best-wine-opener/>
2. "Wine bottle opener opportunity," Design Decisions Wiki, last modified February 25, 2014, https://wiki.ece.cmu.edu/ddl/index.php/Wine_bottle_opener_opportunity
3. "The Ultimate Guide to Corkscrews & Wine Openers," Wine Cooler Direct, last modified August 2, 2016, <https://www.learn.winecoolerdirect.com/corkscrews-and-wine-openers/>
4. "How to Use A Waiter's Corkscrew," Elle Talk, <https://www.elletalk.com/how-to-use-a-waiters-corkscrew/>