

## THE FOUR C'S

WHEN LOOKING AT DIAMONDS, WE REFER TO THE 4C'S AS THE BASIC BUYING GUIDE; CUT, COLOR, CLARITY, AND CARAT.

### CUT

The cut of a diamond refers to its proportions. Of the 4C's, the cut is the only characteristic directly influenced by man (i.e. the cutter or manufacturer of the stone). The other three C's are dictated by nature alone.

The cut of a diamond should not be confused with its shape. Diamonds are cut into various shapes depending upon the original form of the uncut rough diamond. Whatever the shape, a well-cut diamond is better able to reflect light.

A diamond's ability to reflect light determines its display of fire and brilliance. Diamonds are usually cut with 58 facets, or separate flat surfaces. These facets follow a mathematical formula and are placed at precise angles in relation to each other. This relationship is designed to maximize the amount of light reflected through the diamond and to increase its beauty. When a diamond is cut to proper proportions, light is reflected from one facet to another and then dispersed through the top of the stone. When the cut of a diamond is too deep, some light escapes through the opposite side of the pavilion. When the cut of a diamond is too shallow, light escapes through the pavilion before it can be reflected.

The cut, or proportions, of a diamond is measured in percentages relative to the diameter of its girdle. The girdle diameter of each diamond is always considered 100%. Example: The girdle of a diamond measures 10 millimeters (100%). The table measures 5.6 millimeters. The total depth measurement is 6.1 millimeters. The diamond would be described as having a table of 56% and a depth of 61%. The table and depth percentages are the key to determining good proportions.

### COLOUR

The best color is no color. Diamonds allow light to be reflected and dispersed as a rainbow of color. This light dispersion, or color flash, has no effect on the technical grading of color. The absolute finest colorless stone carries a D rating, descending through each letter of the alphabet to Z, designating a diamond of light yellow, brown, or gray. This body color may be caused by the presence of trace elements, such as nitrogen, within the atomic framework of the carbon crystal. These trace elements are so minute that they are scientifically measured in parts per million (p.p.m.). As the body color becomes more intense, the grade for color descends the scale. When directly comparing diamonds for color, most people are unable to detect a difference unless they are at least two or three color grades apart. Most professionals use a comparison method to determine the color of a stone.

It is often surprising to learn that diamonds also occur by rare accidents of nature in shades of pink, blue, green, amber, or even red. These rarely occurring colors are referred to as fancies and are evaluated by a different set of color standards. These standards take into consideration various factors such as hue and saturation. Fancy colored diamonds are the most expensive because of their extreme rarity.

### CLARITY

Almost all diamonds contain very tiny natural birthmarks known as inclusions. To determine a diamond's clarity, an expert views it under 10 power magnification. In addition to internal inclusions, surface irregularities are referred to as blemishes.

These two categories of imperfections, inclusions-internal, and blemishes-external, make up clarity.

The fewer the imperfections, the rarer and more valuable is the diamond. Many inclusions are not discernable to the naked eye and require magnification to become apparent. A laboratory-certified clarity rating of SI2 represents the point at which inclusions are technically not apparent to the average naked eye. Clarity is graded using a very precise and complex method of evaluating the size, location, and visibility of inclusions.

### CARAT

Most people compare carat weight to size. The larger the diamond the more it weighs. The weight of a diamond is expressed in carats. The word carat originated from the carob tree or *Ceratonia siliqua*. The tiny seeds of this tree are well known for their uniformity and consistent weight. Traditionally diamonds and gemstones were weighed against these seeds until the system was standardized, and one carat was fixed at 0.2 grams. One carat is divided into 100 points. A diamond weighing one quarter of a carat can also be described as weighing 25 points or 0.25 carats. Points are generally not used to describe weights over one carat. The rarity of a diamond is greatly affected by its size. The rarity of a 1.00 carat diamond is much greater than twice that of a .50 carat. Although it only weighs twice as much, the 1.00 carat is statistically much more difficult (rare) to mine than the .50 carat.

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