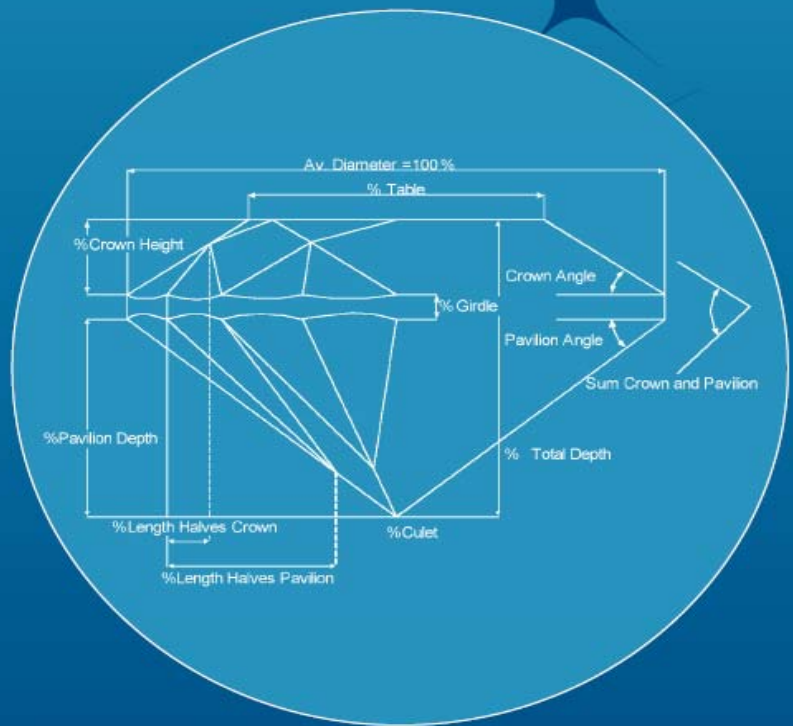


Refined HRD Antwerp Cut Grade

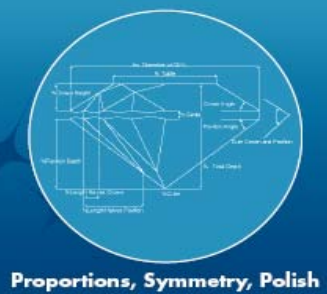
from 01/01/2009



**Proportions
Symmetry
Polish**



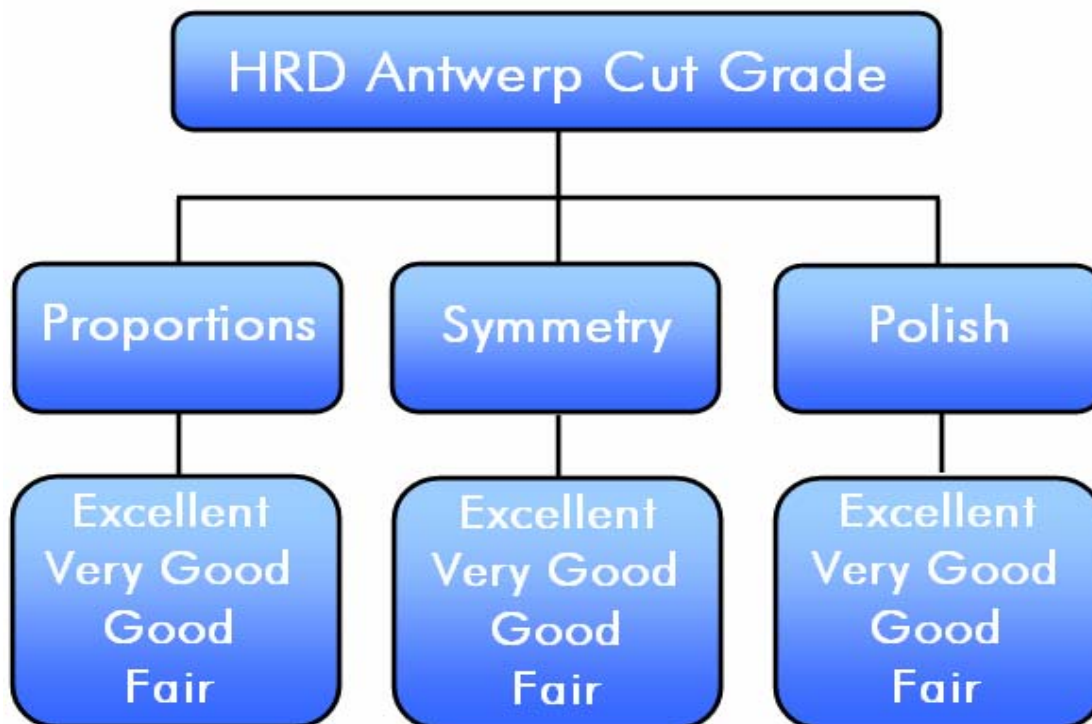
Refined HRD Antwerp Cut Grade from 01/01/2009



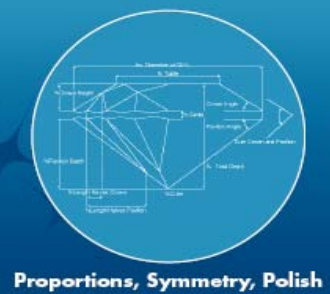
Definition of Cut Grade

The description of the Cut Grade on a certificate is split into 3 grades: proportions, symmetry and polish. Each grade is divided into 4 categories: Excellent, Very Good, Good and Fair.

- ⊗ The proportions are determinative for the brilliancy and the fire of the diamond
- ⊗ The symmetry describes the variations of the different parameters which define the proportions
- ⊗ The polish describes the finish of the facets



Refined HRD Antwerp Cut Grade from 01/01/2009



Proportions, Symmetry, Polish

1. Proportions

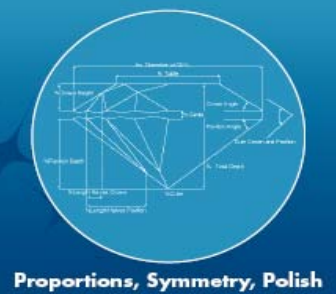
1.1 Determination of proportions

For a diamond to show an optimal combination of brilliancy and fire, it has to be polished with due attention to the angles of inclination and proportional relations between the various parts of the stone. If the angles and proportions are not optimal, this can lead to the appearance of one or more specific effects in the stone, which are detrimental to its beauty. When grading the proportions of a polished diamond, the main issue is therefore to evaluate if, and if so to what extent, these effects occur.

1.2 Parameters that can characterize the proportions for the round brilliant

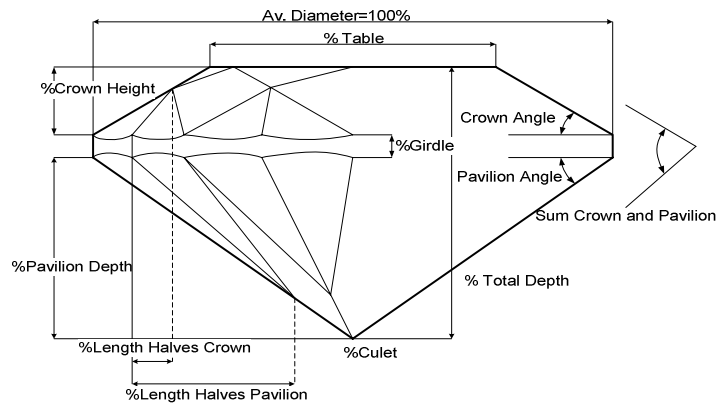
- ⊗ The bezel angle (β)
- ⊗ The pavilion angle (α)
- ⊗ The proportion of the table width to the diameter (%t)
- ⊗ The proportion of the crown height to the diameter (%hc)
- ⊗ The proportion of the pavilion depth to the diameter (%hp)
- ⊗ The proportion of the girdle thickness to the diameter (%a)
- ⊗ The culet size (%culet)
- ⊗ The proportion of the total depth to the diameter (%td)
- ⊗ The sum of the crown- and pavilion angle
- ⊗ The half length of the upper girdle facets
- ⊗ The half length of the lower girdle facets
- ⊗ The fish eye effect (visual grading)
- ⊗ The effect culet visible in the bezels (visual grading)

Refined HRD Antwerp Cut Grade from 01/01/2009



Proportions, Symmetry, Polish

1.3 Profile of a diamond and the different parameters

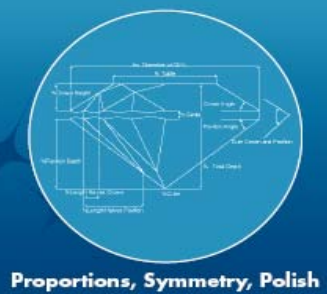


1.4 Overview of the different parameters per category

	Fair	Good	Very Good	Excellent	Very Good	Good	Fair
Bezel angle (β)	up to 25.9°	26.0 to 27.9°	28.0 to 31.9°	32.0 to 36.0°	36.1 to 37.7°	37.8 to 40.0°	40.1° and up
Pavilion angle (α)	up to 38.4°	38.5 to 39.5°	39.6 to 40.5°	40.6 to 41.8°	41.9 to 42.1°	42.2 to 43.1°	43.2° and up
Table width	up to 49%	50 to 51%	52 to 53%	54 to 62%	63 to 66%	67 to 70%	71% and up
Crown height	up to 8.5%	9.0 to 10.5%	11.0 to 11.5%	12.0 to 16.0%	16.5 to 18.0%	18.5 to 19.5%	20.0% and up
Pavilion depth	up to 39.5%	40.0 to 41.0%	41.5 to 42.5%	43.0 to 44.5%	45.0%	45.5 to 46.5%	47.0% and up
Girdle	up to 0.5%	1.0 to 1.5%	2.0%	2.5 to 4.0%	4.5%	5.0 to 7.5%	8.0% and up
Culet size				0.0 to 0.9%	1.0 to 1.9%	2.0 to 3.9%	4.0% and up
Total depth	up to 52.9%	53.0 to 55.4%	55.5 to 58.4%	58.5 to 62.5%	62.6 to 63.9%	64.0 to 66.9%	67.0% and up
Sum α and β	up to 67.9°	68.0 to 69.9°	70.0 to 72.4°	72.5 to 77.0°	77.1 to 78.9°	79.0 to 80.0°	80.1° and up
Half length crown	up to 30%	35%	40%	45 to 55%	60%	65%	70% and up
Half length pavilion	up to 60%	65 to 70%	75%	75 to 85%	85%	90%	95% and up
Fish-eye effect				Excellent		Good	Fair
Culet in bezels				Excellent			Fair

If the measurements of the stone are situated in different categories, the lowest proportion grade is considered to be the overall reading.

Refined HRD Antwerp Cut Grade from 01/01/2009



Proportions, Symmetry, Polish

1.5 Effects that can be perceived when observing the stone perpendicular to the table

- ⊗ Fish Eye:
The reflection of the girdle is partially or completely visible in the table (small pavilion angle and a large table width)
- ⊗ Culet visible in the bezels:
The diamond shows an abnormal amount of scintillation, due to the culet and the surrounding facets being visible through the bezels (a large total depth and crown angle)

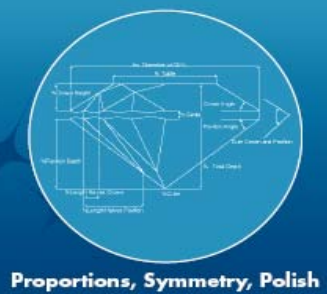
1.6 Description of the girdle and influence on the proportions

Description of the girdle	Measured value	Proportion Grade
Extremely thin	0.0 – 0.5%	Fair
Very thin	1.0 – 1.5%	Good
Thin	2.0%	Very Good
	2.5%	Excellent
Medium	3.0 – 4.0%	Very Good
	4.5%	
Thick	5.0 – 6.0%	Good
Very thick	6.5 – 7.5%	Good
Extremely thick	8.0% and up	Fair

1.7 The influence of the culet size on the proportions

Description of the culet	Culet Size	Proportion Grade
Pointed	0.0% (<0.033mm)	Excellent
	0.1% (0.033 mm) - 0.9%	
	1.0 - 1.9%	Very Good
	2.0 - 3.9%	Good
Large	4.0% and up	Fair

Refined HRD Antwerp Cut Grade from 01/01/2009



Proportions, Symmetry, Polish

2. Symmetry

2.1 Determination of symmetry

The symmetry describes the variations of the different parameters which define the proportions.

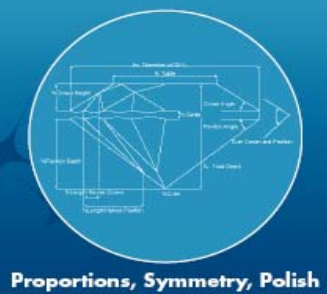
2.2 Measurable deviations

Symmetry-deviations	Excellent	Very Good	Good	Fair
Unroundness	<1.0%	<2.0%	<4.0%	4.0% and up
Variation in crown height	<1.0%	<2.0%	<5.0%	5.0% and up
Variation in pavilion depth	<2.0%	<3.0%	<6.0%	6.0% and up
Table out of center	<1.0%	<2.0 %	<5.0%	5.0% and up
Culet out of center	<1.0%	<2.0%	<5.0%	5.0% and up
Table and culet out of center	<1.0%	<2.0%	<5.0%	5.0% and up
Variation on the table width	<2.0%	<4.0%	<8.0%	8.0% and up
Variation on the girdle thickness (on max & min)	<1.0%	<2.0%	<5.0%	5.0% and up
Single cut effect	<0.5%	<0.8%	<2.0%	2.0% and up
Variation on the bezel angles	<2.0°	<4.0°	<8.0°	8.0° and up
Variation on the pavilion angles	<1.0°	<2.0°	<4.0°	4.0° and up
Variation on the angles of the upper girdle facets	<2.0°	<4.0°	<8.0°	8.0° and up
Variation on the angles of the lower girdle facets	<1.0°	<2.0°	<4.0°	4.0° and up

2.3 Visual grading

Visual deviations	Deviation of the bezels
	Deviation of the pavilions
	Cone-shaped girdle
	Bow tie effect
	Misalignment
	Girdle partly faceted

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Proportions, Symmetry, Polish

2.4 Symmetry deviations which influence the brilliance

- ⊗ Single Cut effect:
The diamond looks as if it has less facets than are really present. A single cut effect is caused by the angles of the bezels / pavilions and the halves of the bezels / pavilions side.
- ⊗ Bow tie effect:
Through the crown side, two dark zones in the shape of a bow tie can be seen.

3. Polish

Polish defines all external characteristics of the diamond. These characteristics are mostly the result of polishing the diamond.

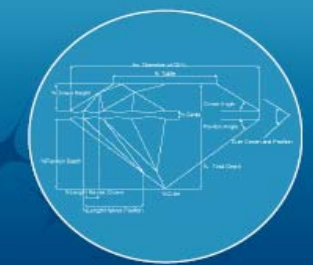
3.1 The characteristics being graded are

- ⊗ Scratches
- ⊗ Percussion figures
- ⊗ Beard
- ⊗ Polishing lines
- ⊗ Abraded facet edges
- ⊗ Pit
- ⊗ Nick
- ⊗ Burn marks
- ⊗ Laser marks
- ⊗ Extra facets
- ⊗ Naturals

3.2 Description of the polish

Polish	Observation with loupe 10x
Excellent	Characteristics, not or very difficult to find with a loupe 10x
Very Good	Characteristics, difficult to find with a loupe 10x
Good	Characteristics, easy to find with a loupe 10x
Fair	Characteristics, very easy to find with a loupe 10x

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Proportions, Symmetry, Polish

4. Conclusion

The proportion grade is based on the average of the measured values.

If there is a large deviation on one or more values, the beauty of the diamond can be influenced.

The table below shows the influence of symmetry and/or polish on the final proportion grade.

Pol / Sym	EXCELLENT	VERY GOOD	GOOD	FAIR
Proportions	EXCELLENT	VERY GOOD	GOOD	FAIR
EXCELLENT	EXCELLENT	EXCELLENT	VERY GOOD	GOOD
VERY GOOD	VERY GOOD	VERY GOOD	VERY GOOD	GOOD
GOOD	GOOD	GOOD	GOOD	GOOD
FAIR	FAIR	FAIR	FAIR	FAIR