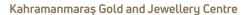


From the Past to the Future...

Kahramanmaraş, Developing and Growing with an Ancient Art





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KAHRAMANMARAŞ GOLD AND JEWELLERY CENTRE

"Adds Value to the Future"



GOLDSMITHERY AND JEWELLERY SECTOR IN TURKEY

Gold, which has been used as an ornament and money since the beginning of the human history, is one of the main metals that always maintained its importance. This precious metal has been a popular jewellery and wealth building means in Turkey as well as all over the world since ancient times.

Goldsmithery is a profession that exists for thousands of years in Turkey where the tradition of gold and jewellery production dates back to 5 thousand years. Anatolian lands hosted numerous civilizations since the beginning of the history, i.e. Hittites, Urartians, Phrygians, Ionians, Lydians, Romans, Byzantines, Seljuks and Ottomans, and this ancient craft filtered from their aesthetic perspective, and refined taste has created its own unique style by combining itself with art.

Turkish goldsmithery and jewellery industry makes production with innovative designs carrying the heritage and traces of this tradition by utilising modern technology and techniques.

The fact that the export of the jewellery made from precious metals and minerals in Turkey has significantly increased has made Turkey one of the leading countries in the world. Turkey is among the five biggest markets of the world together with India, China, USA and Russia in terms of the size of the gold and jewellery market and shares the first three places with India and Italy in production.

Including more than 50 large companies employing 200-1500 qualified personnel, the goldsmithery and jewellery sector, which is one of the largest production industries, provides employment opportunity to approximately 250 thousand people, and on average, 250 – 300 tons of gold and jewellery are produced annually in Turkey.

Vision

To increase the competitiveness of gold and jewellery sector; to attract foreign investment directly; to improve partnership among the industry actors and to make clustering a common objective for international actors, thereby to strengthen brand quality; to contribute to the regional and national development by creating conditions such as infrastructure, technology and innovation for the integration of Kahramanmaraş gold and jewellery cluster into the global value chain.

Mission

The mission of Kahramanmaraş Gold and Jewellery Centre is to help to strengthen special services of the SMEs in the region such as training, networking, coaching, modelling, product design and development capacities and to increase their level of global value chain.





Fundamental Principles

Management structure open to new ideas and development;

Being proactive in terms of new tendencies in the sector;

An organization which is socially responsible and open to sharing and participation;

Transparency and accountability at each level of the organization starting from the top;

Commitment to the highest standards in all activities carried out;

No discrimination based on gender, colour, belief and language.



Priorities

To allow women, youth, and disadvantaged groups to find their working potential by ensuring togetherness in all steps taken for success in business;

Developing young people, women and disadvantaged groups through vocational and personal skills training programs;

Improving on-the-job training opportunities for SMEs, vocational high schools and other education institutions; creating internship areas and subjects;

Developing social responsibility projects and/or taking an active role in the relevant fields;

Providing the necessary conditions so that enterprises supported through training can operate in a more pleasant and fruitful environments;

Providing case studies and training opportunities for business support organizations (chambers, NGOs, research centres, etc.).



Social Responsibility

Corporate social responsibility (CSR) means the way enterprises are managed in order to produce a general positive impact on communities, cultures, societies and environments where they operate. The foundations of corporate social responsibilty rely on the fact that not only public policy but even companies need to be adequately responsible to address social problems. Therefore, companies have to deal with challenges and problems that countries encounter to a certain extent.

The CIBJO Blue Books are definitive sets of grading standards and nomenclature for diamonds, coloured gemstones, pearls, coral, precious metals and gemmological laboratories, and also responsible sourcing practices. They are compiled and are consistently updated by the relevant CIBJO Commissions, whose members include representatives of trade organisations and laboratories active in the diamond, coloured gemstone, pearl, precious metals and jewellery industries (https://www.cibjo.org).

The priorities of Kahramanmaraş Gold and Jewellery Centre in the field of social responsibility are defined in line with the CIBJO Blue Books.



KAHRAMANMARAŞ GOLD AND JEWELLERY CENTRE

Today, businesses must renew themselves, adapt to technology easily and respond to needs in a short time in order to continue their existences and increase their competitiveness.

While fast-growing technology facilitates the movement of capital, it requires businesses to create fast and sustainable values in the same way. In this competitive environment where value chain has become international, businesses must keep pace with this speed and change in order to survive and develop and adapt themselves to these processes by preserving their tradition, experience and authenticity.

Gold and Jewellery Centre, emerged as a product of the work to improve goldsmithery sector in Kahramanmaraş, was constructed within the scope of Kahramanmaraş Altın Şehir Project implemented previously.

Besides the services it offers, Kahramanmaraş Gold and Jewellery Centre which provides significant support for development of the businesses in goldsmithery sector and achievement of regional development by considering the regional benefit, the Centre is the first of its kind in Turkey with approximately 400 workshops, meeting hall, parking lot, guesthouse and social facilities which can respond to the needs of the sector.







Why Kahramanmaras?

Kahramanmaraş is the city with the largest labour force and production capacity in gold and jewellery sector of Turkey after İstanbul. There are almost 700 gold and jewellery workshops in the city, mostly SMEs, and the sector employs approximately 5 thousand people. A good part of the products displayed in the jewellery showcases in Turkey is processed in the jewellery workshops in Kahramanmaraş. Businesses have significant experience in handcrafting with their experience blended for at least four generations.

Today, Turkey has gained a privileged position in the world ranking with its capacity and labour force in the goldsmithery sector. The province which catches that development in the sector and has the largest labour force and production capacity is Kahramanmaraş after İstanbul. However, Kahramanmaraş, which ranks second after Istanbul in jewellery production, can not get the share it deserves in exports. Exporting companies in Kahramanmaraş are mostly obliged to get service from an intermediary company based in İstanbul.

According to the sector report drafted by the Kahramanmaras Chamber of Jewellers, there are 4 basic needs in the jewellery sector:

- 1. Support in the fields of design and modelling;
- 2. Innovative product development based on research;
- 3.A high-tech laboratory;
- 4. Increasing the institutional capacities of SMEs.

The Gold and Jewellery Centre will operate in order to respond to these needs.

On the other hand, Kahramanmaraş Metropolitan Municipality registered 'Kahramanmaraş Burma Bracelet' which is a type of bracelet unique to Kahramanmaraş as a Geographical Indication. This is the first branding attempt for the local sector so far. Kahramanmaraş Gold and Jewellery Centre will make a great contribution to create and maintain the image of the goldsmithery sector of Kahramanmaraş with the proper branding strategies.

Design and 3D Modelling Centre

Kahramanmaraş Design and 3D Modelling Centre, planned within the framework of intensive R&D studies and sector needs and has started its operations and training activities with high technology at Sütçü İmam University Karacasu campus, is established on 12 thousand m² of land with 1 million 700 thousand TRY subsidy. The Centre is created with the application of Kahramanmaraş Sütçü İmam University, with the support of Eastern Mediterranean Development Agency, with the partnership of Kahramanmaraş Chamber of Jewellers and Kahramanmaraş Chamber of Commerce and Industry.

With high technology and infrastructure facilities within approximately 1300 m² closed area, the Centre aims to rapidly reduce and end dependency on suppliers outside Kahramanmaraş for prototype products.

With the training provided and studies carried out at the Centre, it is possible to avoid the time lost in design phase by acting fast in modelling and to contribute to the efficiency directly by using this time in production-oriented works.

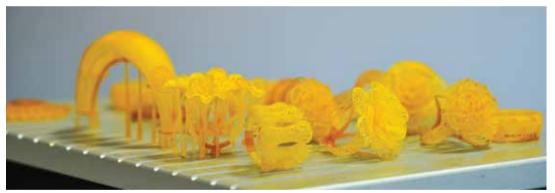




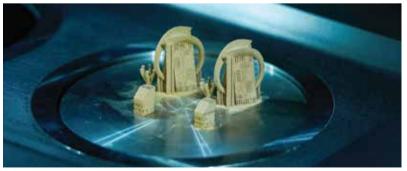




The students who are trained at the centre which aims to provide the sector with qualified personnel by using advanced technology will accelerate development and branding of the sector in the near future with the high-quality training they get. As a result of the works of the centre which actively operates with all its units where university-industry cooperation is reflected to work discipline, input costs of the SMEs in the goldsmithery sector in Kahramanmaraş are reduced, and valuable and artistic products produced in the centre are introduced to the sector.







Assay House

Assay House, which is accredited by the mint, serves with its globally accepted accreditation certificate. High-tech different systems as well as traditional systems such as cupellation are utilised at Assay House which ensures that manufacturers can get carat results of their metals quickly without referring to another province.





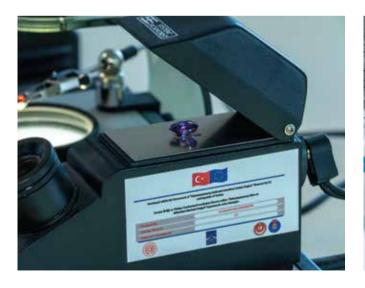


Gemmology Laboratory

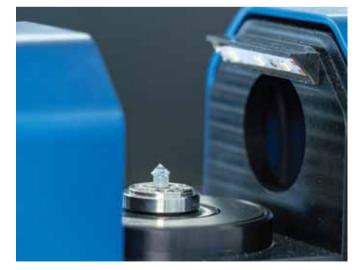
Gemmology Laboratory, which was implemented within the body of Kahraman-maraş Gold and Jewellery Centre to provide services not only to Kahraman-maraş but also to the whole region, certifies precious and semi-precious gems. High technology equipment provides services in the internationally accredited laboratory, gems' identities are created by stamping serial numbers in precious gems. Certificates issued by the Gemmology Laboratory are valid all over the world.

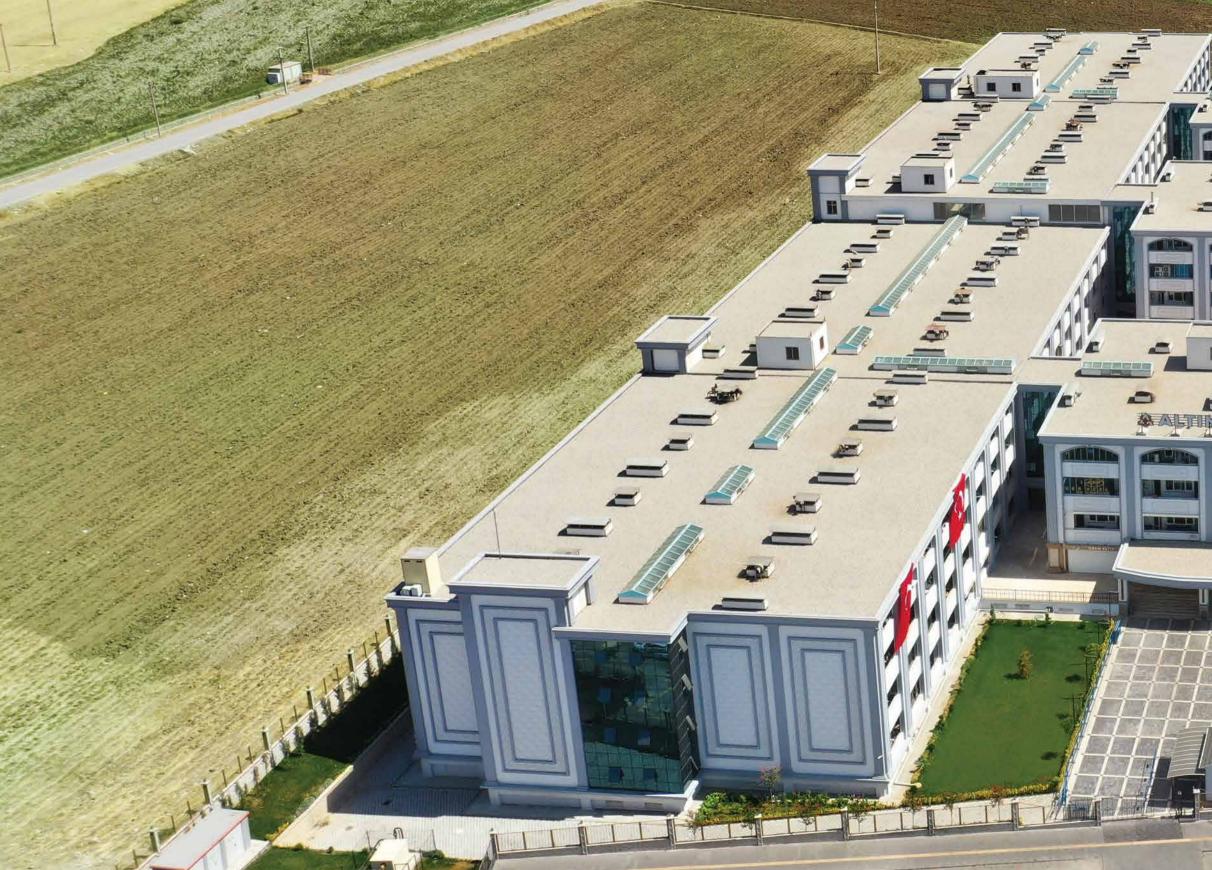


Gemmology Laboratory and Assay House, which are located in Altın Şehir which brings jeweller workshops together, ensure that manufacturers do not need to go to another province to have their metals and stones certified, will provide services with its globally accepted accreditation certificate, and these certificates will be valid all over the world.



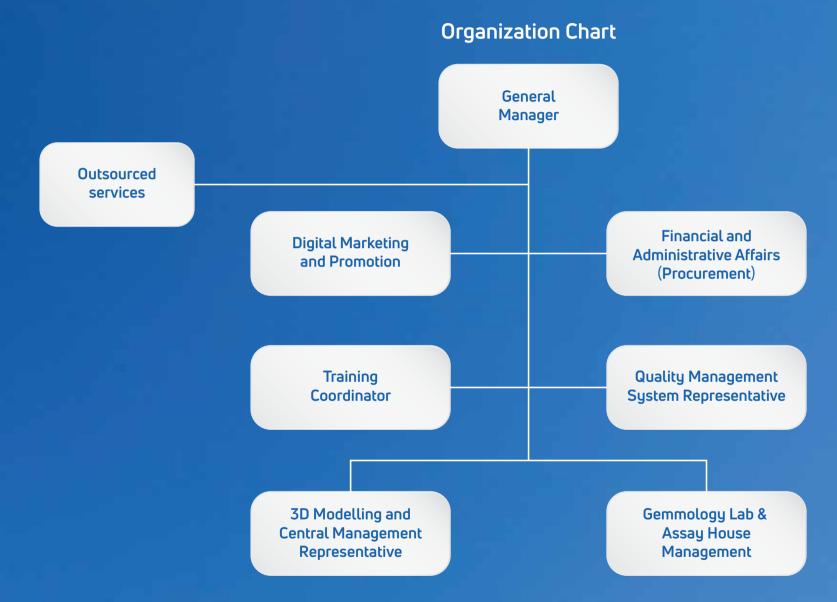








Organizational Structure





HISTORY OF KAHRAMANMARAŞ GOLD AND JEWELLERY CENTRE

Kahramanmaraş Chamber of Jewellers started working on the establishment of Small Industrial Site in 2010 in order to improve the conditions of the companies making production in unhealthy conditions and insufficient means in the passages in Kahramanmaraş city centre and to ensure that they work in safer environments. In this regard, with the financing of the Eastern Mediterranean Development Agency, Kahramanmaraş Kuyumcukent Specialized Industrial Site Feasibility Report was prepared in 2011. The interviews conducted with the workshops in the province during the preparation of the report showed that 75% of the workshops would like to be located in a small industrial site to be established. Accordingly, 'Kahramanmaraş Gold, Silver and Precious Metals Manufacturers Small Industry Building Cooperative' was established, and the construction of the site having 106 thousand m² closed area was started in 2016 and completed in 2020.

On the other hand, Kahramanmaraş Sütçü İmam University was not indifferent to the initiatives taken to improve the goldsmithery sector in Kahramanmaraş. The university took an important step to meet the personnel needs of the sector by starting the Vocational School of Technical Sciences Jewellery and Jewellery Design Program in 2011-2012 academic year. Kahramanmaraş Design and 3D Modelling Centre was established within the University which always points out the importance of the design in the goldsmithery sector, with the Guided Project Support of the Eastern Mediterranean Development Agency.

Subsequent to the establishment of the Small Industrial Site and Design and 3D Modelling Centre, it turned out that two more important steps must be taken to improve the sector, i.e. keeping pace with the technological developments in design and to be able to present the final product in accordance with the standards. With this objective, Kahramanmaraş Gold and Jewellery Centre was launched within the scope of the Competitive Sectors Programme as a result of the works carried out in cooperation with Kahramanmaraş Chamber of Jewellers, Kahramanmaraş Sütçü İmam University, Kahramanmaraş Chamber of Commerce and Industry and the Eastern Mediterranean Development Agency.





TECHNICAL ASSISTANCE FOR KAHRAMANMARAŞ GOLD AND JEWELLERY CENTRE

Technical Assistance for Kahramanmaraş Gold and Jewellery Centre, co-financed by the European Union and the Republic of Turkey, aims to contribute to the transformation of manufacturing industry specifically in goldsmithery and jewellery sector and to rise to the higher levels in the global value chain.

In line with the objective of the Competitive Sectors Programme of the Ministry of Industry and Technology to contribute to the increase in exports and productivity, the project, which commenced in June 2020 and will continue for 30 months, consists of two components including various activities that will enable Kahramanmaraş goldsmithery and jewellery sector to find its deserved place in the national and international market and will increase its competitiveness:

- Component A: Establishment of the Centre's Service Infrastructure and Support to the Accreditation of the Analysis and Test Laboratory of the Centre
- Component B: Design and Delivery of SME Capacity-Building Services

Within the scope of the Component A 'Establishment of the Centre's Service Infrastructure and Support to the Accreditation of the Analysis and Test Laboratory of the Centre, technologies that will enable to make unique designs and to transform these designs into final products (3D printers and scanners, lasers and stone-working tools, equipment to be used in design and production, etc.) were brought to the region and it was made possible to increase the export with the quick production of the models suitable for foreign fashion and tendencies, and that will increase the product range and market share.

Another activity carried out within this scope is the establishment of an internationally accredited 'Gemmology Laboratory' which will be able to issue certificates by making the analysis of the precious and semi-precious gems and has the state-of-the-art technology, and the establishment of the Mint certified "Gold Assay House" which will be located in Altin Şehir.

During diagnostic studies, development of work plan and service delivery guidelines, establishing and supporting human resources of the Centre, promotion of the services of the centre and ensuring its visibility are among the other activities envisaged under the Component A, the activities within the scope of the Component B 'Design and Delivery of SME Capacity-Building Services' include providing training on design and modelling to SMEs and providing coaching and networking support.

Physical Location

Kahramanmaraş Gold and Jewellery Centre consists of two separate sites:

Site 1

Kahramanmaraş Sütçü İmam University, Vocational School of Technical Sciences, Department of Handcrafts Goldsmithery and Jewellery Design Program Karacasu Campus 46100 Dulkadiroğlu/Kahramanmaraş - Turkey



Site 2
Altın Şehir Small Industrial Site, Yahya Kemal Mah. Rasim Özdenören Cad. No:29 Dulkadiroğlu/Kahramanmaraş









A. Production and Services

Customer Preferences and Design Research

It is a consultancy service provided to companies that will develop their product range and produce new products with new designs, in order to create a product development and design infrastructure that appeals to specified customer groups.

Export Consultancy Service

It is a consultancy service to be provided to analyse export demands of customers, to determine the current situation and potential markets, to reach the market and target customer groups, and to support marketing and sales activities.

Production Development Consultancy

It is the service of developing and implementing the production processes of the products designed for the customer segment and the specified market.

Quality Control Consultancy

It is a service to follow up the quality of products at every stage during and after the production process starting from the raw material, to ensure traceability and to prepare an action plan. Quality control should not be the final phase of production. Quality control should be made at all processes starting from the procurement of the raw material, and it should aim to reduce error rates under one per thousand. Kahramanmaraş Gold and Jewellery Centre serves to its customers with a total quality control management approach.



B. Design and Modelling Services

Hand Design

Hand design is a service provided to develop new products or to improve the existing ones.

Computer-aided Design

It is a service provided to design and develop new products or to improve the existing ones with computer.

3D Modelling

Developing 3D models of products with modelling directly via computer.

C. 3D Prototyping

3D Metal Prototyping

It is 3D metal moulding by using powdered metals after 3D modelling.

3D Resin Printing

It is a process to make 3D models of products by using resin.

3D Wax Printing

It is a process to make 3D models of products by using wax.

D. 2D Design

It is a 2D drawing service on computer.



E. Casting Services

The process of forming metal or metal alloys in liquid form by pouring them into the pre-prepared mould cavity is called casting method. The purpose of casting is to save time required for production when it is necessary to repeat a previously made jewellery or more than one product is needed. In the centre, casting service is provided with the latest technology by using the 'Vacuum Pressure Casting' technique.

Gold Casting

It is the process of pouring gold melted in a pot.

Silver Casting

It is the process of pouring silver melted in a pot.

Fusion Casting

It is the process of casting of very sensitive items. There is no mould in fusion casting.

Prototype Casting

It is the process of die casting from silver.

Resin Model Casting

It is the casting of a resin model from 3D printer.

Sale of Wax rather than Mould

It is the wax die casting from the main mould.

Setting Stones in Wax

It is the process of setting stones in a wax model. This service is used in the production of gemstone jewellery. Generally, it is cheaper than setting stones in an already moulded jewellery.





F. Laser Cutting, Marking and Engraving Services



Laser Drawing

It is the process of drawing products on computer. The desired drawing is made by engraving on the surface with the effect of intense laser light on the area to be printed on the product.

Laser Cutting

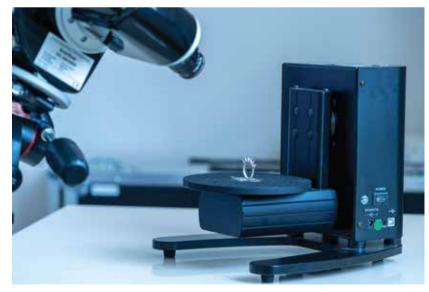
Laser cut is basically a thermal process in which a focused laser light is used to melt materials in a local area. A coaxial gas jet is used to eject the molten material and create a notch. A continuous cut is achieved by moving the laser beam or the workpiece under CNC control.

Laser Marking and Engraving

Laser marking changes the surface colour of the material whereas laser etching and engraving remove some of the surface area by marking. The biggest difference between laser etching and engraving is the depth that laser penetrates on the surface.

It can be used almost all types of metal, plastic, wood, leather or glass surfaces. You may obtain lots of different carved materials. Besides, it is more effective than the traditional engraving for small items like jewellery. The probability to harm or deform the material is lower. It can be used for many different practices such as medical devices, fine arts, etc.





G. 3D Object Scanning Service

It is the process of transferring the 3D model of the sample piece to the computer environment with the 3D scanning method.v



H. Assay House Services

Assay Service with Cupellation

Cupellation is a refining process in metallurgy where mineral ores or alloyed metals are processed at very high temperatures and that has controlled processes to separate noble metals like gold and silver from base metals present in the ore like lead, copper, zinc, arsenic, antimony or bismuth.

Assay Service with XRF

XRF (X-ray fluorescence) is a non-destructive analytical technique used to determine the basic composition of materials. XRF analysers determine the chemistry of the sample by measuring the fluorescent (or secondary) X-ray emitted from a sample when excited by a primary X-ray source. Each of the elements present in a sample produces a set of characteristic fluorescent X-rays ("fingerprints") that are unique to that particular element, so XRF spectroscopy is an excellent technology for qualitative and quantitative analysis of material composition. XRF measurement works down to 0.5 micron depth.

Assay Service with ICP

For the determination of gold in gold jewellery alloys, the ICP (inductively coupled plasma) method has been recognized as the only spectrometric method that can serve as an alternative to cupellation.





I. Gemmology (Gemstone) Laboratory Services

Gemmology is the examination of both natural and artificial (synthetic) precious and semi-precious gems. Gemmology is related to mineralogy (examination of physical and chemical features of minerals) and technological production of precious gems for jewellery and other uses.

Pre-Analysis of Gemstones

Easily Observable Features: Crystal form, colour, cleavage, lustre (metallic, non-metallic), transparency (transparent, translucent or opaque), birefringence, lines, feel, odour (smell), taste.

Basic Tests Requiring Equipment: Hardness, magnetism, streak, acidic reaction, specific gravity, malleability, flexibility, electrical resistivity, fluorescence, phosphorescence, radioactivity, thermoluminescence.

• Rating, Reporting and Certification of Gemstones

Carat, Colour, Clarity and Cut quality is a Full 4Cs rating of gemstones having features above the classification. This quality determination is in line with the CIBJO rules regulated in Diamond book. Gemstones under 0.30ct are not rated. The diagram below shows the diamond image facing up on the card. Weight 0.15 carats or more for loose, D to Z coloured diamonds only.

Determining the quality of a gemstone includes features named as 'four C' by the jewellers, which are:

· Colour · Clarity · Cut · Carat

J. Training Programs (60 hours each)

- Hand Design Training
- Casting Training
- Polishing Training
- Transfixing Training
- 3D Modelling Training
- Laser Systems Training
- Rubber Mould Training
- Gemmology (Gemstone) Training

