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PEAK BUILDERS & CONSULTANTS

Anandam Arcade,
Behind Civil Station,
Palakkad - 678 001.
: 9947622607, 9020482324
: knrsambath@gmail.com

Date: 17/01/2025

To,
M/s. AJC Jewel Manufacturers Limited
38/227-Z, Inkel Greens Edu City,
Karathode-Konamppara Road,
Panakkad Village, Pattarkadavu,
Malappuram,Eranad, Kerala-676519, India

CERTIFICATE

Based on your request, we have visited the manufacturing unit of Gold Jewellery owned by **AJC Jewel Manufacturers Limited,** situated at No. 38/227-z, Inkel Greens Edu City, Karathode-Konamppara Road, Panakkad Village, Pattarkadavu, Malappuram, Eranad Kerala, 676519, India on 16/01/2025 in order to verify installed capacity and utilized capacity of the plant till December 2024.

The Manufacturing unit is inspected in the presence of Ashraf P - The Managing Director of the company.

Based on the site visit, existing set up of the company and production data provided by the company, herewith certifying the installed capacity and utilized capacity of the plant. Detailed working of the same are enclosed in Annexure

Sl No	Year	Installed capacity in Kilogram per Annum	Actual capacity in Kilogram per Annum	% of Utilization rate
1	April 2021 - March 2022	350 Kg	260 Kg	74%
2	April 2022 - March 2023	600 Kg	330 Kg	55%
3	April 2023 - March 2024	700 Kg	440 Kg	63%
4	April 2024 – Up to December 2024	525 Kg	310 Kg	59%

Information regarding production output included in this report is based on information provided by the company and hence certain assumptions are made.

This report contains 12 sheets (Including Annexure & Photographs).

Kindly acknowledge. Thanking you,

Yours faithfully,

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Annexure

About the Company

AJC Jewel is a gold jewellery manufacturing firm located at Inkel industrial park, Malappuram district, Kerala. AJC is manufacturing the ornaments like rings, pendant, bracelet, chains etc. from the raw gold and selling to wholesale dealers, chain showrooms, corporates and small jewellery shops. AJC specialised in casting jewellery.

Our company marked it's footprints in the year 2014 Ashraf P and his father Kunhimohamed P jointly entered into gold jewellery manufacturing business by setting up a small factory unit at Iringalloor, Vengara. At that time the business name and style was as 'Vismaya Gold'. In 2018, the business was more professionalised as AJC Jewel Manufacturers Pvt Ltd.

Now AJC having a 50 Cent Plot on lease including 15000 sqft factory building with most modern machines and equipments at Inkel City Malappuram. AJC has around 100+ employees presently including skilled craftsmen from various parts of country.

List of products

22 K Yellow Gold Ornaments							18K Rose Gold
Plains			Studded			Named ornaments	
Ladies	Gents	Kids	Ladies	Gents	Kids		
Ring	Ring	Ring	Ring	Ring	Ring	Name Ring	Ring
Bracelet	Bracelet	Bracelet	Bracelet	Bracelet	Bracelet	Name Bracelet	Pendant
Pendant	bangle	Pendant	Pendant	bangle	Pendant	Name Pendant	Necklace
Earrings	Hoops	Earrings	Earrings	Hoops	Earrings		
Bangle	Pendant	Bangle	Bangle	Pendant	Bangle		
Nose Pin	Necklace	Nose Pin	Nose Pin	Necklace	Nose Pin		
Necklace		Necklace	Necklace		Necklace		
Anklet		Anklet	Anklet		Anklet		

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	List of all owned Plant and Machinery / Equipments				
Sr. No.	Machine Name	Name of the vender	Capacity	Quantity	Year of Purchase
1	Autoclamp Wax injector	Aurum technical solutions	4 Gram / Minute	1	2021
2	Photo Studio Machine V7	Magnic technologies pvt ltd	NA	1	2022
3	Laser Welding Machine Model No WS200B	Star laser technology	10 Spot / Minute	1	2020
4	Laser Cutting Machine (Tanishq Dolphin special 50 watt)	Dolphin laser technology	1 Millimeter / Minute	1	2021
5	Double station polishing with Dc (6*9)	Professional engineering works	600 Gram / Day	1	2023
6	Ultrasonic cleaner Hand wash model	Professional engineering works	NA	1	2023
7	Hand Wash With Two taps	Professional engineering works	NA	1	2023
8	Ap 100 Airpurifier	Professional engineering works	NA	1	2023
9	Two Stn polishing machine with 1.5 hp DC (TP150)	Well worth engineering	600 Gram / Day	1	2022
10	3D Printer DLP	Aurum technical solutions	1 Platform / 2 Hour	1	2023
11	Core series 50 micron B9c core 550	Navbharat carbon company	1 Platform / 2 Hour	1	2021
12	Air circulation Burnout Electric furnace	Riddhi Heatron international	5 Kg / Day	1	2023
13	Melting machine Rod Type 2kg	Aurum technical solutions	4 Kg / Day	1	2021
14	Instantaneous Gas GT 1000	Aurum technical solutions	NA	1	2023
15	2 in 1 Casting Machine	Aurum technical solutions	5 Kg / Day	1	2023
16	Ultrasonic cleaner 12 ltr	Aurum technical solutions	NA	1	2023
17	Six Pass Wiredrawing Machine	Kalyan engineering corporation	100 Millimeter / Minute	1	2020
18	Bangles and rings Tube Drawing Machine Motor operated	Krishna enterprise	100 Millimeter / Minute	1	2020
19	Bangles and rings Tube Forming Die and spindle	Krishna enterprise	100 Millimeter / Minute	1	2020
20	Wax Injector	Vismaya gold	4 Gram / Minute	1	2022
21	Laser Engraving Machine - italian brand orotic	Vismaya gold	1 Millimeter / Minute	1	2022
22	Single Station Buffing Machine	Vismaya gold	300 Gram / Day	1	2022
23	3D Printer - b9 creat	Vismaya gold	1 Platform / 2 Hour	1	2022

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24	Casting Machine - Schultheiss VPC 040 POWER	Vismaya gold	3 Kg / Day	1	2022
25	Water Chiller	Vismaya gold	NA	1	2022
26	Burn out Farnace	Vismaya gold	3 Kg / Day	1	2022
27	Water jet	Vismaya gold	NA	1	2022
28	Valcunizar	Vismaya gold	4 Mold / 2 hour	1	2022
29	Gas generator	Vismaya gold	NA	1	2022
30	Magnetic polisher	Vismaya gold	1 Kg / Hour	1	2022
31	Drum Polisher	Vismaya gold	1 Kg / Hour	1	2022
32	Steam Polisher	Vismaya gold	1 Kg / Hour	1	2022
33	Electroplating Rectifier	Vismaya gold	100 Gram / Hour	1	2022
34	Sandblasting Machine	Vismaya gold	NA	1	2022
35	Enamel oven	Vismaya gold	NA	1	2022
36	Wire Drawing Machine	Vismaya gold	100 Millimeter / Minute	1	2022
37	Ultrasonic cleaner 25 ltr	Attrum technical solutions	NA	1	2021

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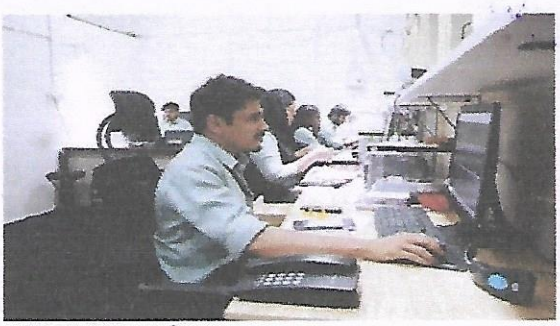
Jewellery Manufacturing Process

STEP 1 – ORDER MANAGEMENT SYSTEM (OMS)

From the time the customer places an order, until the customer receives their purchase, there is a process that runs in the background. This process is called **order management**, which is basically keeping track of customers' orders and handling the steps involved with fulfilling them. The process generally consists of accepting the order; set production process, transfer between departments, quality checking, and packing the items mentioned in the order; and finally tracking those until that order get delivered.

The system is handled very well, by our skilled staffs with years of experience.




STEP 2 – DESIGNING

The process of jewellery making is no less than a magic! This entire process of the jewellery designing involves lots of steps like designing, model making to the final step of quality check.

Creating a design is the first step which is involved in the process of jewellery making. The designing is the stage where the jewellery designer develops an idea of jewellery design and turns it into a reality by evaluating the idea and upon further analysis.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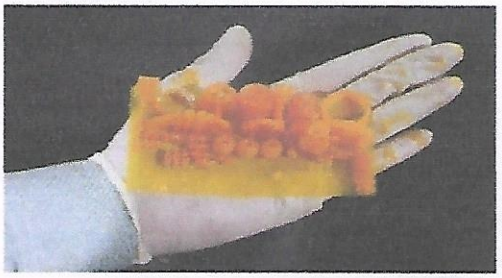
STEP 3 – CAD/CAM (3D Printing)

The second stage, just after the designing stage is the CAD/CAM stage, which involves the use of CAD Software. The CAD Software is a 2D and 3D computer-aided software often used by designers which improves the dimensional accuracy and quality of the design. Also, it helps in the creation of a database for manufacturing. When the task of designing a concept gets completed by the jewellery designer, and the same is being created on the paper and designed at the system. This process of conversion of 'concept on paper' to the 'system' is done through the CAD Software, or the Computer Aided Designing technology.

➢ CAM

The CAM or the Computer Aided Manufacture software is a software which takes care of the process of machining and manufacturing, or simply we can say, to automate the manufacturing process.

While an ink printer creates images by organizing layers of liquid ink on paper, a 3D printer creates three dimensional objects by organizing layers of molten plastics (Resin) on top of each other. Just like with any machined part, a 3D printed part will be produced most efficiently when designed with CAD. 3D printers are subject to the instructions contained in the CAD model. They use this data to determine how much material to deposit and where exactly to deposit it.



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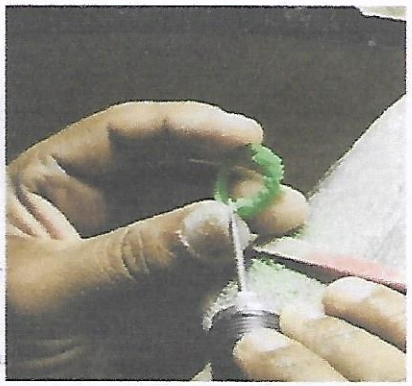
STEP 4 – MASTER DESIGN/CAM FILING

Master Design/ CAM filing is the next step after converting the resin to a CAM model. Under CAM Filing, the excess resin (Plastic Materials) is being removed from the piece. The variety of tools like files and grinding motors are being utilized to remove resin/plastic layer and offering a smooth finish and weight to be obtained in gold. Designs made in this way are called master design. A master design is made that is used to create similar jewelry through the casting process.

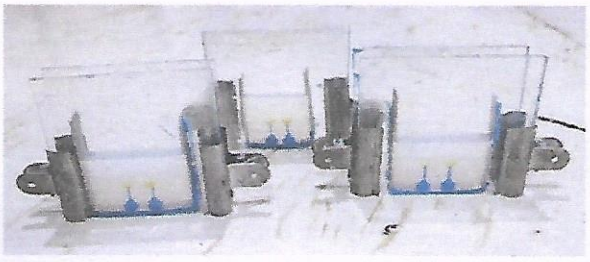




STEP 5 – RUBBER MOULD

The 5th stage is the Rubber Mould stage which plays an integral role in the process of the production. The Rubber Mould helps in the creation of the multiple pieces of same designed jewellery. The best part of the rubber mould is that the designs remain safe, well protected and embedded within it and thus can be used to create replicas of the jewellery design in the future. The materials involved in the making of mould can vary from natural rubber, silicone to metal and the process of the mould making is labelled as 'Vulcanizing'.



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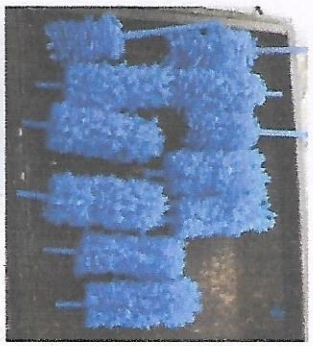
STEP 6 – WAXING / WAX TREE

The next stage involved in the jewellery manufacturing process is the production of wax pieces. The wax pieces are produced from rubber moulds made of cam master. The process of waxing involves placing the rubber mould on the clamps wax injector machine and then melted wax injected into the cavity in order to create wax models. These wax models are being used for casting.

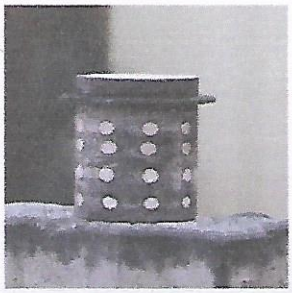
The wax pieces on a wax stem are being soldered which is called 'treeing'. The treeing is the process where a sprue is attached to every wax piece, making an angle of approx. 45 degree with the stem. The lighter items are placed at the top of the tree, while the heavier ones are placed at the bottom of the tree.



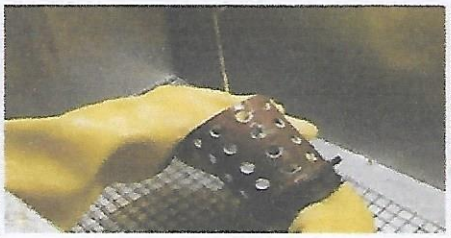



STEP 7 – CASTING

Moving on to the next step, the jewellery manufacturing process at AJC involves the stage of casting, which is regarded as among the most complex processes. The process of casting requires experienced and skilled casters. The entire process of casting involves placing the wax tree in a steel flask and then placing a slurry of chemical powder which takes around an hour to solidify. Afterwards, the flask is placed in an electric furnace to heat. As a result of which the wax melts and thus leaving a cavity of tree. After melting the wax, this flask is taken and placed in the casting machine. Gold prepared in a certain ratio is deposited into this machine and it is melted. The resulting molten metal is then poured in the flasks and is allowed to cool off. After, the molten metal is cooled, demolished and the jewellery in the form of casting is revealed.



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STEP 8 – GRINDING/CENTRIFUGAL DISC FINISHER (CF)

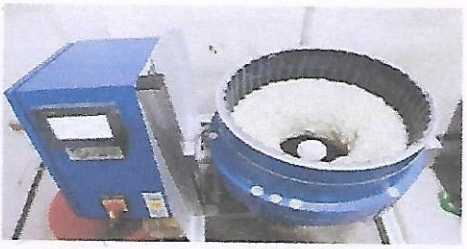
The grinding is the next stage involved in the process of jewellery manufacturing. The grinding involves the use of polisher which is used to grind off the nub (A nub is resulted after the process of casting; once the raw casting is clipped off from the casting tree and appears at the place where the sprue was attached with the gold piece!). The polisher utilizes the motorized grinding machine to smoothen the surface of gold piece of the jewellery. The Grinding involves the final process of the polishing, which is carried out by holding the jewellery piece against the spinning grinding wheel and thus resulting a smooth surface as required.



➢ Centrifugal Disc Finisher (CF)

In this process mainly disc finishing machines of the type CF series are used. The machine works as follows: The process container consists of an open barrel, the base of which is free to rotate on bearings. This barrel is filled with a grinding medium, e.g. triangular granules 4 x 4 mm in size. When the machine is then switched on, the medium moves in a toroidal vortex





STEP 9 – FILING / ASSEMBLY AND LASER SOLDERING

The Filing is the next stage involved in the process of the jewellery manufacturing. Under Filing, the excess metal or solder is being removed from the piece. The variety of tools like files and burs are being utilized to remove casting layer and offering a smooth finish. After filing, the task of assembling is carried out which is the process of joining 2 or more components of same design using soldering technique or laser technique.



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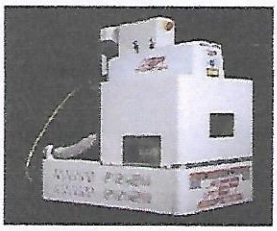
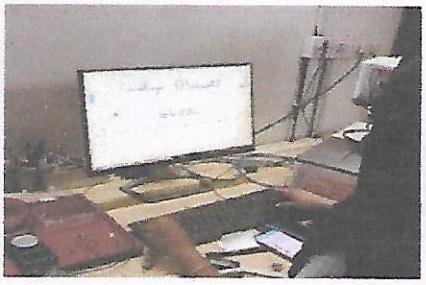
STEP 10 - Laser Cutting and Marking

Laser cutting is a modern and innovative technique used to create intricate and precise designs. It involves using a high-powered laser to cut through metal, allowing for precise shaping and detailing

Jewellery Laser Marking Machine has a non-contact engraving method and is needed for the jewelry making industry for creating the beautifully designed jewelry. The machine allows for flawless work and stay unaffected by the material hardness.



STEP 11 – METAL SETTING

The metal setting is the 11th stage in the manufacturing of jewellery. The metal setting is the process of setting or attaching the CZ stone in the jewellery. The metal setting is varied in order to create different designs. Even the combination of different metal setting is used to give a captivating appearance to the jewellery piece. The metal setting is of various kinds as mentioned just above, and the long list of the setting includes prong, plate prong, pave, bezel, pressure, bead, flush, invisible, fishtail, miracle plate and channel.



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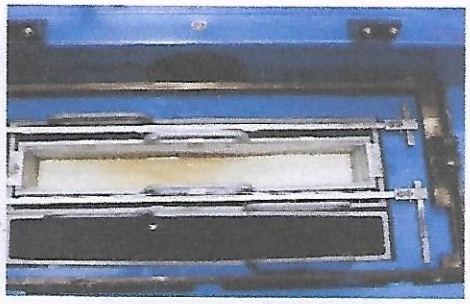
STEP 12- ELECTRO POLISHING

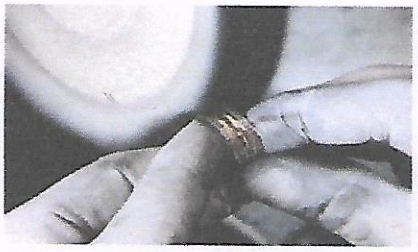
Electropolishing is an electrochemical finishing process that removes a thin layer of material from a metal part, typically stainless steel or similar alloys. The process leaves a shiny, smooth, ultra-clean surface finish. Also known as **electrochemical polishing**, **anodic polishing** or **electrolytic polishing**, electropolishing is especially useful for polishing and deburring parts that are fragile or have complex geometries. Electropolishing improves surface finish by reducing surface roughness by up to 50%.





STEP 13 – POLISHING

The Polishing stage is the final stage where the polishing of the jewellery takes place. The polishing is done to ensure the better shine of the jewellery, which is carried out after setting of stones. The polishing can be carried out by both means; either manual or by machine. The tools which help the craftsmen to polish the jewellery manually includes soft buff, solid buff, hair buff, single line ball buff, coin buff, platinum polishing rouse, red and green rouse (to impart shine), black lustre to remove casting or filling layers, and white lustre for the removal of roughness.


STEP 14 – ELECTROPLATING

Electroplating is a method to put a metal coating onto an object, in our case a piece of jewellery, by placing it in a solution containing the metal to be plated and passing an electrical current through the piece and the solution. It is possible to electroplate coatings of most pure metals.



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STEP 15– RHODIUM PLATING/ENAMEL

The Rhodium plating is the penultimate stage of the jewellery manufacturing. The Rhodium Plating involves the process of placing the Rhodium (A sparkling white colored precious metal, which provides a better resistance to the jewellery against scratches and tarnish!) on a piece of jewellery. The Rhodium is being placed on a yellow gold in order to create a visually appealing design and pattern, while the same is placed on a white gold to add whiteness to the gold (since the white gold is not so white in the pure form!).

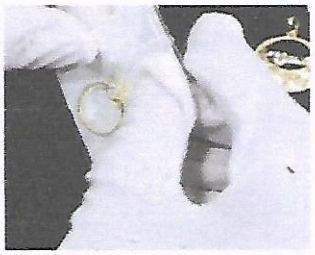
Enamel refers to a coating applied to the metal of a piece of jewelry. It is applied as a paste or powder and then heated to extremely high temperatures of more than 1500 degrees to fuse the metals with the powder, creating a colorful coating that would not be possible with metals alone.

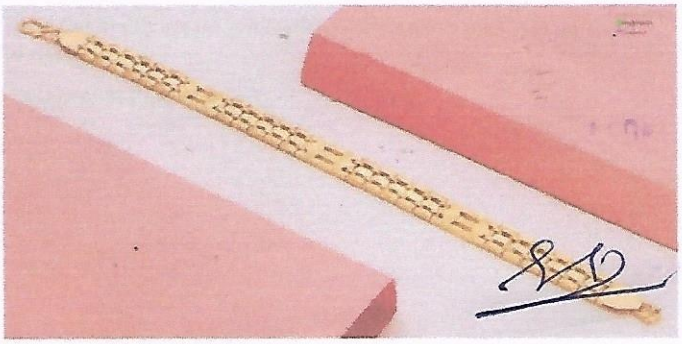


STEP 16 – QUALITY CONTROL

The final stage in the process of jewellery manufacturing is the quality control which is equally as important as other stages. The Quality control is the stage which ensures that the final manufactured product adheres to the defined set of quality guidelines and meets the standard requirements. The Quality control involves 3 methods which are measurement, visual inspevction and mechanical inspection.







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