ANAND ENGINEERING WORKS

JAIPUR, INDIA

MANUFACTURERS AND EXPORTERS OF LAPIDARY MACHINES AND EQUIPMENTS WORLDWIDE

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ABOUT US

We, the members of a family of Jewelers and Lapidarists of Jaipur, India have established this organization to develop indigenous machines and tools for the local Lapidary Industry in India that was mired in traditional methods of cutting and polishing of gems. These entrepreneurs used engineering skills with their extensive knowledge of lapidary operations to develop machines and tools to suit the Indian conditions and budgets.

As a result-today, "ANAND" is a household name in the Gemstone industry in India. We have already mechanized over 30,000 units processing gemstones in India and some in other countries.

Our biggest contributions have been in the colored gemstone sector in Jaipur and the synthetic stones sector in Trichy, Tamil Nadu in India.

We are regular exporters of Machines and Gems to many countries of the world including USA, Germany, UK, Russia, Australia, France, Belgium, Thailand, Sri Lanka, Tanzania, Saudi Arabia, Kuwait, Afghanistan, Iran, Singapore, New Zealand, Bangladesh, South Africa, Zambia, Argentina, Kenya, Madagascar, Italy, Holland, Abu Dhabi, Indonesia, Mozambique, Uganda and Brazil etc. and the list continues to grow....

We are also involved in poverty alleviation through self-employment programs of the Government. We are engaged in providing Training, Machinery & Equipment, Raw Materials and Marketing back up for the Finished Products of hundreds of workers belonging to the poorer section of the society.

Presently, the CEO of the company is Mr. Krishan Johri who has travelled around the world and has utilized his extensive knowledge of Gems & Jewelry for the development of this organization into a forward looking manufacturer-exporter of prominence.

A process of continuous development and up-gradation has resulted in development of arguably the most versatile Concave Faceting Machine by us. This has opened a whole new plethora of possibilities in the field of Concave Faceting of Gems which, we believe, is still in the pre-development stage. In order to try and realize the full potential, we have been led to starting a devoted Lapidary unit for Concave Faceting - where we not only develop new facets and styles but also provide Custom Cutting Services to our clients.

We also provide training at our factory as well as at our customer's factory.
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All specifications are subject to change without notice.
SAWING MACHINES
LAPIDARY EQUIPMENT

SINGLE BLADE SLICING MACHINE
MODEL: AEW-SBS

STANDARD EQUIPMENT & ACCESSORIES
The machine body is in a tank form and is made of Cast Iron ¼ H.P. 1440 rpm single phase 220 volts motor AC-50 cycle Aluminum housing that contains the main shaft. The main shaft holds the cutting blade in a specially provided washer and also holds the driven pulley. The shaft is loaded between two sealed bearings. The machine is fixed with a coolant splashguard; the coolant is stored in the tank body. The machine comes fixed with outlet tap for the coolant. A calibration attachment to set the cutting width to a particular size is supplied with the machine.

The cutting blades are not provided with the machine.

The machine is supplied with light arrangement and belt protection guard.

OPERATIONAL DETAILS
The Gemstone is held in the hand and is brought nearer the blade for cutting. The motor rotates the Blade and the operator does all other operations manually.
This machine can be best used for cutting rough stones with the help of 4” to 6” diameter cutting blades. It can also be used for cutting thin slices of uniform size by using the calibration attachment provided with the machine.

The R.P.M. of the cutting blade can be adjusted from 700 to 2800 approx. with the help of step pulleys provided with the machine.
STONE CALIBRATED SAWING MACHINE
MODEL: AEW-SCSM

STANDARD EQUIPMENT & ACCESSORIES
The Machine Base is mounted on Cast Iron Legs and machine base, the Cross-Slides to control the horizontal and vertical movements of the work piece are made in Cast Iron. There is a good quality Bearing Housing that houses one end of the Rotating shaft, Step Pulleys and Belt. The other end of the shaft holds the large size Sawing Blades (up to 8” diameter). Coolant tank, Pump and Pipes are provided. Coolant splash-guards are provided. One – 1.0 H.P. Motor, 1440 rpm, 220 volts-single-phase AC-50 cycle comes with the machine. The Leads and connections are provided for the motor. One Clamping Vice for clamping or gluing the stones is provided. The machine is supplied with one set of steel washers to support the cutting blades.

OPERATIONAL DETAILS
Rough Stones are held or glued in the clamping vice and the vice is set horizontally at the place where cutting is desired. Then the motor and the coolant pumps are started and the blade is brought down slowly on the stone. Once the complete cut is obtained, the blade is left free to take back its original place. The stone is either removed if only one cut was required or the clamping slide is moved horizontally with the help of the moving wheel to another desired position to perform another cut.

MAJOR ADVANTAGES
This is an ideal machine for sawing large slabs of rough stone. The machine can also be used for sawing tiles of large slabs.
LAPIDARY EQUIPMENT

SLAB SAWING MACHINE FOR LARGE STONES
MODEL: AEW-SSL

STANDARD EQUIPMENT & ACCESSORIES
The Machine has a chamber design and is equipped with Cross-Slides to control the horizontal and vertical movements of the work piece. It includes high quality Bearing Housing that houses one end of the Rotating shaft, Step Pulleys and Belt. The other end of the shaft holds the large size Sawing Blades. Coolant tank, Pump and Pipes are provided. A see-through transparent windows is provided on the top cover for being able view the cutting process from outside. Two high quality hydraulics support the top to hold it. Coolant splash-guards are provided. The Leads and connections are provided for the motor. One Clamping Vice for clamping or gluing the stones is provided. The machine is supplied with one set of steel washers to support the cutting blades.

OPERATIONAL DETAILS
Rough Stones are held or glued in the clamping vice and the vice is set horizontally at the place where cutting is desired. Then the motor and the coolant pumps are started and the blade is brought down slowly on the stone. Once the complete cut is obtained, the blade is left free to take back its original place. The stone is either removed if only one cut was required or the clamping slide is moved horizontally with the help of the moving wheel to another desired position to perform another cut.

MAJOR ADVANTAGES
This is an ideal machine for sawing large slabs of rough stone. The machine can also be used for sawing tiles of large slabs.
Anand Engineering Works (AEW) – Lapidary Equipment Catalog

LAPIDARY EQUIPMENT

MULTIPLE BLADES SAWING MACHINE
MODEL: AEW-MBS

STANDARD EQUIPMENT & ACCESSORIES
The Machine Base is mounted on a steel angle frame, the Cross-Slides to control the Horizontal and vertical movements of the work piece are made in Cast Iron. The Bearing Housing houses one end of the Rotating shaft, Step Pulleys and Belt. The other end of the shaft is connected to a bearing loaded revolving center. Main Shaft for holding Sawing Blades of up to 5-inch diameter. Shaft size is made as per the bore size of the cutting blades.

The main shaft can take up to 60 Sawing Blades depending on the size of distance pieces required and the thickness of the cutting blades used. Coolant Pipes and Coolant splash-guards are provided. One 1.0 H.P. Motor, 1440 rpm, 220 volts-single-phase AC-50 cycle comes with the machine. One Base plate, which can be rotated by 90 degrees, is provided with the machine for fixing of work pieces. The machine is supplied with one set of steel washers to support the cutting blades and the distance pieces.

OPERATIONAL DETAILS
Rough Stones are fixed on to the base plate with the help of quick fixing adhesive glues or wax. The Base plate is attached to main machine. The main shaft is loaded with the required cutting blades separated by distance pieces of the required sizes. The main shaft is fixed to the revolving center. The motor and coolant pump are operated. The vertical and horizontal slides of the machine are set to just close to where the actual cutting will start. The horizontal slide is moved manually or through the attached tiny motor to achieve the horizontal cut. The base plate is rotated to 90 degrees. The horizontal slide is once again moved to achieve another horizontal cut. This results in small cubical sticks of the required size of the stone. These cubical sticks can be re-fixed to achieve one more cut, which will result in cubes being formed. These cubes can be further cut to get triangular shapes if required. Alternatively, the cubical strips can be taken on to a Single Blade Slicing Machine to cut them into the required cubes or triangles.

MAJOR ADVANTAGES
Ideal Machine for uniform and bulk production of Slices, Cubes or Triangles. Most suited for mass production of synthetics or low priced stones.

OPTIONAL ACCESSORIES
Spacers or distance pieces to be inserted between the cutting blades. These come in different sizes ranging from 2, 2.5, 3.5, 4, 4.5 up to 8mm. the coolant pump and coolant tank should be arranged locally.
PRE-FORMING MACHINES
LAPIDARY EQUIPMENT

GRINDER MACHINE
MODEL: AEW - GRM

STANDARD EQUIPMENT & ACCESSORIES
The machine body is in a tank form and is made of Iron and fitted with ¼ H.P., double shaft, 1440 rpm single phase 220 volts motor AC-50 cycle. The two ends of the motor shaft holds the Grinding Lap. The machine is fixed with a coolant splashguards; the coolant is stored in the tank body for sawing. A separate coolant container stand is provided for keeping the coolant for use in Grinding. The Grinding Laps are not provided with the machine.
The machine is supplied with light arrangement and motor.

OPERATIONAL DETAILS
The motor rotates both the Grinding Lap simultaneously. This machine has been designed keeping in mind the budget buyers and works as a combination machine for Grinding. It is not advisable to perform both operations at the same time.

MAJOR ADVANTAGES
1. Ideal machine for those who do not want to buy two machines but wish to have different grinding attachment.
2. Best suited for hobbyists.

OPTIONAL ACCESSORIES
Grinding Laps
LAPIDARY EQUIPMENT

PRE FORMING MACHINE
MODEL: AEW - HPF

STANDARD EQUIPMENT & ACCESSORIES
The machine base is a tabletop design fitted with a laminated mica top on sturdy cast iron legs with steel pipes/angles providing the necessary support. The machine is fitted with a central housing that contains two separate shafts driven by the same motor – but both these shafts can be rotated in different directions with the help of an idler pulley. This pulley also helps in belt tightening. ¼ H.P. 1440 rpm single phase 220 volts motor is provided. The shafts are fitted with support washers for the grinding laps and also fixed with the base plates for grinding laps. The machine is fixed with coolant splash guards and a coolant re-circulation system.

The machine is provided with a coolant tank, but the coolant pump should be arranged locally. The machine is provided with arm rests. The machine comes fixed with outlet trays for the coolant and lamps.

OPERATIONAL DETAILS
The Gemstone is fixed on to a wooden Dopstick (not provided) with the help of the dopping wax. The stones is then operated upon the grinding laps fixed on the grinding lap bases to obtain the required shape and size of the stone manually. The motor helps in rotating the grinding laps only and all other operations are to be done by the operator manually. Its table-top designs increases efficiency as compared to the traditional hand operated floor type attachments. Two to Four Persons can operate with one motor in a very clean and modern way.

OPTIONAL ACCESSORIES
The grinding lap, the polishing lap, dopsticks, and coolant attachments are not provided with the machine.

MAJOR ADVANTAGES
1. Ideal equipment for controlling the weight of the pre-forms as compared to the complete machine made pre-forms.
2. It is also useful for getting rid of impurities in certain areas of the stone more efficiently.
3. Most suited for pre-forming high value rough stones.
CALIBRATING MACHINES
GIRDLE SHAPING & CALIBRATING MACHINE
(Without dopping the stone)
MODEL: AEW - GSCM

STANDARD EQUIPMENT & ACCESSORIES
The machine base is a sturdy Cast Iron base, which forms the machine table and is suitably supported by a sturdy steel angle frame. ¼ H.P. 1440 rpm single-phase 220 Volts AC-50 cycle motor to drive the grinding wheel. A central housing that contains the main shaft driven by the main motor, the R.P.M. of which can be adjusted with the help of step pulleys provided. The main facotor of the machine is mounted on a bearing pedestal. The master template is fixed close to the collet revolving handle and is supported by a revolving base. Separate templates are supplied for different shapes. The machine is fixed with the light attachment and a control panel, which contains the various electrical switches and a pilot lamp. The machine is fixed with coolant splashguards and coolant re-circulation system.

OPERATIONAL DETAILS
The Gemstone is inserted and locked into the collet like cup which holds the stone firmly. The Girdle of the stone is then ground on the grinding wheel in accordance with the shape of the template used. The motor helps in rotating the grinding wheel. The forward and circular movements of the stone are to be carried out manually with the help of the handles provided for the purpose. The machine is ideal for shaping and calibrating Girdles of virtually all gemstones in almost all conceivable shapes. Different master templates are required for different shapes.

MAJOR ADVANTAGES
1. One single machine for shaping as well as calibrating the Girdles of virtually all Gemstones.
2. Easy to handle and operate the machine.
3. Hassel-free operations as the stones are not required to be dopped.
4. More yield from the same quantity of rough stones as most of the weight loss is primarily due to incorrect dopping of the stones - and this problem is saved in this machine - resulting in higher yield.
5. Faster & Economical operation - as the time and expenses involved in dopping the stones are saved

OPTIONAL ACCESSORIES
The grinding wheel is not provided with the machine.
LAPIDARY EQUIPMENT

CABOCHON SHAPING CUM PRE-SHAPING & CALIBRATION MACHINE
MODEL: AEW-CSM

STANDARD EQUIPMENT & ACCESSORIES
The machine base is a sturdy Cast Iron base, which forms the machine table and is suitably supported by a sturdy steel angle frame. ¼ H.P. 1440 rpm single-phase 220 Volts AC-50 cycle motor to drive the grinding lap. One tiny DC motor to drives the work piece. A central housing contains the main shaft driven by the main motor, the rpm of which can be adjusted with the help of step pulleys provided. The main faceter of the machine is mounted on a bearing pedestal on top of two cross slides made of sturdy cast iron. All this is mounted on a bearing housing for a separate angular movement. The master template is fixed to the back of the collet and is supported by a revolving base.

Separate templates are supplied for different shapes. The machine is fixed with the light attachment and a control panel, which contains the various electrical switches and a pilot lamp. The machine is fixed with coolant splashguards and coolant re-circulation system.

OPERATIONAL DETAILS
The Gemstone is fixed on to a metal (brass/iron) dopstick with the help of a two compound epoxy glue. Dopstick is heated for glue to settle and fix the stone. The dopstick with stone is then inserted into the collet in the faceter and locked. The electrical connections are so designed that as soon as the faceter is brought nearer the grinding lap, the faceter motor starts operating. Stone is then ground on the grinding lap in accordance with the shape of the template used. The motors help in rotating the grinding laps, the work piece, the master template for the shape etc. Loading and un-loading of the stone and the angular movement are to be done manually.

The cross slides - like that of a lathe machine - are used for:
1. Setting the correct desired size of the stone - calibration. All stones operated on this setting will produce same size stones.
2. Setting the height of the dome of the cabochon. This means that one can make cabochons of different dome heights with the same master template.

MAJOR ADVANTAGES
1. This machine makes cabochons on a standard 8" diameter grinding lap as against the expensive variations used in other machines.
2. This machine uses a two dimensional template as against expensive 3-dimensional templates used in other machines. This machine uses only one template for many different heights of domes of cabochons. Other machines need different templates for different dome heights.
3. This machine doubles as a calibration and pre-shaping machine with minor adjustments that can be done by the user.

OPTIONAL ACCESSORIES
The grinding lap, dopsticks, dopstick stands, heater and glue are not provided with the machine.
FACETING AND POLISHING MACHINES
LAPIDARY EQUIPMENT

FACETING & POLISHING MACHINE
MODEL: AEW – FPK

STANDARD EQUIPMENT & ACCESSORIES

The machine base is made up of Cast Iron and is fixed with zinc coated steel legs with check nut to help in maintaining proper balance on any surface. One ¼ H.P., 1440 rpm Single-phase 220 volts motor AC 50 cycle. This motor is fixed on a removable base plate. The two housings contain two separate shafts driven by the same motor – but both these shafts are rotated in different directions with the help of an idler pulley. This pulley is adjustable and is also used in Tightening of the belt. The bigger housing made of Cast Iron is for fixing the diamond coated grinding lap of 8" dia.

This housing is fixed. The smaller housing also made of Cast Iron is for fixing the polishing lap of 6" dia. This housing is adjustable to match the height of the polishing lap to that of the grinding lap. The machine comes with faceting equipment consisting of a 3-D Block, Facetor with Index wheel, collet and cheater adjustment and a table polisher. The 3-D Block is made of Brass and the table polisher is made of aluminum. The collet is made of spring steel.

OPERATIONAL DETAILS

The Gemstone is fixed on to a metal (brass/iron) dopstick of 8 mm diameter with the help of dopping wax. This dipstick is then inserted in the collet of the facetor and locked. Thereafter the collet is rotated manually with the help of the index wheel alternatingly on the cutting lap and the polishing lap. The index wheel is provided with 64 or 96 divisions to achieve various facets on the stone. The angle protractor fixed to the 3-D Block indicates the angle of cutting and polishing. The motor rotates the cutting lap and the polishing lap. The speed of rotation of either or both the laps can be changed with the help of step pulleys provided with the machine. This machine is ideal for simultaneous faceting and polishing of gems in many shapes especially round, square, octagon etc.

OPTIONAL ACCESSORIES

The grinding lap, the polishing lap, dopsticks, dopstick stand, transfer block, light and coolant attachments are not provided with the machine.

MAJOR ADVANTAGES

1. This machine is capable of simultaneous faceting and polishing and therefore saves precious time and energy of changing laps for faceting and polishing.
2. Separate laps for faceting and polishing ensure that no accidental damage is done to the stone.
3. The facetor can be lifted up almost 180 degrees with respect to the grinding lap. This affords a full view of the stone.
4. Very sturdy base - This results in much greater stability and vibration free operation.
5. The machine is fitted with 3 Angle Protractors as against one in most other machines. These three angle protractors can be used for three different pre-set angles for faceting and polishing.

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LAPIDARY EQUIPMENT

FACETING & POLISHING MACHINE
MODEL: AEW – FPID

The machine base is made up of Cast Iron and is fixed with zinc coated steel legs with check nut to help in maintaining proper balance on any surface. ¼ H.P. 1440 R.P.M. Single-phase 220 volts motor AC 50 cycle. This motor is fixed on a removable base plate. The two housings are driven by the same motor – but both these can also be rotated in different directions with the help of an idler pulley. This pulley is adjustable and is also used in tightening of the belt. One fixed housing is for the diamond coated grinding lap of 8” dia. The other housing is for the polishing lap of 6”- 8” dia. This housing is adjustable to match the height of the polishing lap to that of the grinding lap. The machine comes with faceting equipment consisting of a Facetor, which helps in maintaining the angles and has a cheater adjustment for fine tuning the alignment. The dop sticks are fitted with the indexing attachment.

OPERATIONAL DETAILS
This is the most versatile faceting and polishing machine for Gems. The Gemstone is fixed onto the Brass dopstick with the help of wax. This dopstick comes with an indexing attachment. One end of the dopstick has the stone and the other end of the dopstick is rested in the respective angle slot in the faceter. These slots provide for different angles at which the stone is required to be cut and polished. The indexing attachment on the dop stick is rested and supported against the cross arm of the faceter. The indexing attachment is operated to get the different facets. Once the faceting is complete, the same operation is repeated on the polishing lap for achieving polish on the facets. The indexing attachment has the standard divisions to achieve various facets on the stone. The angle of cutting and polishing is controlled by using the faceter slots. This machine is ideal for simultaneous faceting and polishing of gems in almost all conceivable shapes and is ideal for operator based adjustments for achieving higher yield and also for altering facets and angles at will for irregular shapes.

OPTIONAL ACCESSORIES
The grinding lap, the polishing lap, dopsticks, dopstick stand, transfer block, light and coolant attachments are not provided with the machine.

MAJOR ADVANTAGES
1. The indexing attachment is fitted on the dop stick itself and as such this affords a full view of the stone.
2. Since the faceting and polishing is being done with the same Facetor on the same bas the problems, those arise due to misalignments are not faced in this machine. The facets are fully polished in exactly the same way as they have been cut.
LAPIDARY EQUIPMENT

FACETING & POLISHING MACHINES
MODEL: AEW - FPIT (4)
Also available: AEW-FPIT (2) & AEW-FPIT (6)

STANDARD EQUIPMENT & ACCESSORIES
The machine base is a tabletop design fitted with a laminated mica top on sturdy cast iron legs with steel pipes/angles providing the necessary support. The machine is fitted with 2 housings in a cast iron base bolted to the tabletop. 1/2 H.P. 1440 R.P.M. Single-phase 220 volts motor AC 50 cycle. This motor is fixed on a removable base plate. The two housings contain two separate shafts driven by the same motor. One housing is used for fixing the diamond coated grinding lap of 8" dia. This housing is fixed. The other housing is for fixing the polishing lap of 8" dia. The machine comes with FOUR faceting equipments, which help in maintaining the angles. Each of these factors has a cheater adjustment for fine tuning the alignment. The dop sticks are fitted with the indexing attachment. We also make other models called AEW-FPIT(2) which comes with 2 faceting equipment and one housing and AEWFPIT(6) which come with 6 faceting equipment and three housings. All other things are the same. The machine comes fitted with light attachment and arm rests. The coolant attachment is optional.

OPERATIONAL DETAILS
This is the most versatile faceting and polishing machine for Gems. This is an ideal machine for mass production of gems wherein the work is dived between four operators. Two operators are faceting the stone sand the other two are polishing the stones. The Gemstone is fixed on to the Brass dopstick with the help of doping wax. This dipstick comes with an indexing attachment. One end of the dop stick has the stone and the other end of the dopstick is rested in the respective slot provided in the facetor unit. These slots provide for different angles at which the stone is required to be cut and polished. The indexing attachment on the dop stick is rested and supported against the cross arm of the facetor. The indexing attachment is operated to get the different facets. Once the faceting is complete, these dopsticks are handed over to the operators who will be polishing these Gems on the polishing lap for achieving polish on the facets. The facetors are so aligned with each other that the full facet is polished on the polishing lap exactly as it has been cut on the grinding lap.

OPTIONAL ACCESSORIES
The grinding lap, the polishing lap, dopsticks, dopstick stand, transfer block, and coolant attachments are not provided with the machine.

MAJOR ADVANTAGES
1. The indexing attachment is fitted on the dop stick itself and as such this affords a full view of the stone. This machine is best suited for mass production of Gems.
2. Also the individual expertise of the operator with respect to faceting or polishing can be best utilized to make them do what they are better at.
LAPIDARY EQUIPMENT

FACETING & POLISHING MACHINES
MODEL: AEW - FPIT (6)

STANDARD EQUIPMENT & ACCESSORIES
The basic machine concept is exactly the same as that of our model AEW-FPIT (4). However, the major difference is that this machine can be operated by six persons simultaneously, thereby increasing output.
LAPIDARY EQUIPMENT

CONCAVE-FACETING MACHINE
MODEL: AEW – CFM

STANDARD EQUIPMENT & ACCESSORIES
The machine base is made up of Cast Iron and is mounted on dull finish mica fixed board which forms the table with heavy supporting legs. There are two motors - one is 1/30 H.P. 1400 R.P.M. Single-phase 220 volts motor AC 50 cycle – used for rotating the faceting and polishing rollers simultaneously and the other, a small DC motor used for back and forth and the linear reciprocating movement of the polishing plate while polishing. The machine is fixed with a highly accurate faceting head which is moved back and forth and sideways with the help of slides which can be pre-set for the required distance. The major advantage of the machine is that this machine can be operated by two persons simultaneously, thereby increasing output.

OPERATIONAL DETAILS
The Gemstone is fixed on to a metal (brass/iron) dopstick with the help of doping wax. The dopsticks are fixed with the indexing attachment. The faceting head has the numbered slots for different angles. One end of the dopstick is inserted into these angle slots and faceting and polishing is done according to the shape and size and requirement of the cutting styles. Various types of indexing attachments are available to achieve virtually any desired shape and cut. The faceting and Polishing rollers also come in a variety of sizes ranging from ½” diameter to 1-1/4” diameter. The number of options available for different cutting styles is enormous. The operator has only to use his imagination to achieve almost any style of cut. This is made possible by the angular shifting of the faceting head or that of the faceting and polishing rollers – provisions are given in the machine for both.

OPTIONAL ACCESSORIES
The Faceting Rollers, the polishing rollers, dopsticks, dopstick stand, and transfer block are not provided with the machine and have to be procured separately at extra cost. Most stones have a flat table and this cannot be done on this machine – hence some other machine (we recommend our AEW-FPID model, as this machine is equipped with a similar faceting head) is required for this purpose. It is also our experience that for the sake of variety, people want only some of the facets to be concave cut and others to be flat cut – or they prefer the crown side to be flat cut and the pavilion side to be concave cut – in such cases also, the other machine for flat cutting and polishing is required.

MAJOR ADVANTAGES
1. Excellent Machine for Concave Faceting & Polishing of virtually any size and shape.
2. The first machine for simultaneous faceting and polishing- without the need to change laps, resulting in higher output and greater accuracy of the stone. Adapted to work on the facetors and dopsticks presently being used in the processing of normal faceted stones – results in lesser investment for back end operations.
3. Also suitable for Twisted Faceting & Polishing to a high degree of accuracy.
LAPIDARY EQUIPMENT

TUMBLER MACHINE
MODEL: AEW - TMM

STANDARD EQUIPMENT & ACCESSORIES
This machine is used for polishing high capacity of stones. It comes with two drums and the assembly.

OPERATIONAL DETAILS
The stones are loaded into the drums along with the polishing material. The drum covers are closed and sealed. The machine is turned on and the drums rotate with stones inside to provide a uniform polish on the stones. Time taken is based on the material to be polished and the medium used.

MAJOR ADVANTAGES
1. This is a large capacity tumblers and due to a heavy duty continuous rating motor, can be run for very long periods of time.
2. Almost noise free operation and faster processing compared to the traditional methods.
3. Ease of maintenance, the weights can be manually adjusted to change the direction of movement of material in the container.
VIBRATOR MACHINE
MODEL: AEW – VIB

STANDARD EQUIPMENT & ACCESSORIES
The vibrator is mounted on a mild steel angle frame. It comes fitted with a motor of 1/4 H.P. 1400 R.P.M. which is fixed with weights for effecting vibrations. There are manual controls for varying the speed of vibrations as required for different materials. The container is made of Rubber. The vibrator is designed for a 7kg. load at one time. However, it can also be designed for different load capacities.

OPERATIONAL DETAILS
The top cover of the container is opened and the material to be polished is filled in the container along with the required polishing medium. The top cover is then closed and machine switched on. Time taken is based on the material to be polished and the medium used. The total one time loading capacity of the container is 7 Kgs.

MAJOR ADVANTAGES
4. This is a large capacity vibrator and due to a heavy duty continuous rating motor, can be run for very long periods of time.
5. Almost noise free operation and faster processing compared to the traditional methods.
6. Ease of maintenance, the weights can be manually adjusted to change the direction of movement of material in the container. The speed of vibration can also be controlled as per requirements.
BEADS PROCESSING MACHINES
LAPIDARY EQUIPMENT

ULTRASONIC BEADS DRILLING MACHINES
MODEL: AEW - BDM

STANDARD ACCESSORIES
This is a machine for Beads. A table mounted ultra-sonic vibrator and a current and vibration controller is provided with the machine. Table, Coolant container and emery trays are part of the standard equipment.

OPERATIONAL DETAILS
It’s a fairly easy to operate this machine. The process of drilling is through ultra-sonic vibrations with the help of emery powders. The machine is switched on and the current intake is set to the desired levels. The drilling wire soldered to the drilling tool begins to vibrate. The emery powder mixed with water as coolant is made to pass over the drilling wire through the specially provided tray. The stone (normally held with the help of two fingers and thumb) is brought in contact with the drilling where at the point of desired hole and is slightly pushed upward. The drilling wire, helped by ultrasonic vibrations and emery powder starts making the drill. The stone is slowly pushed upward until the hole is through or the desired depth is achieved. With special drilling tools, one can drill up to 10 mm diameter also.

OPTIONAL ACCESSORIES
Drilling Tools, Drilling Wire, Wire Soldering Equipment and Emery Powders are supplied on request.
LAPIDARY EQUIPMENT

BEADS DIAMOND DRILL MACHINE
MODEL: AEW – BDD

STANDARD EQUIPMENT & ACCESSORIES
This is a drilling machine for Beads. A table mounted drill just like traditional drilling machines. The machine is used with diamond drills which can be purchased with the machine.

OPERATIONAL DETAILS
It’s a fairly easy to operate this machine. The process of drilling is through the diamond drill. The stone is held in place with a clamp. Then the drill is lowered by the handle at side and brought in contact with the stone at the desired point for the hole and is slightly pushed downwards. The drill is slowly pushed down until the hole is through or the desired depth is achieved.

OPTIONAL ACCESSORIES
Drilling tools
LAPIDARY EQUIPMENT

BEADS PRE-FORMING MACHINES
MODEL: AEW – BPM

STANDARD EQUIPMENT & ACCESSORIES
The machine is mounted on an Iron Table and is fitted with 1 H.P., single phase 220 volts, 50 cycle motor.

OPERATIONS DETAILS
The machine is used for grinding the beads into a sphere like shape with the help of emery grinding laps. The grinding laps are prepared in the specially provided die-maker for this purpose. These laps are then mounted on the machine. The machine is started and stones are loaded. These stones then get ground to a sphere like shape which can then be fine ground into perfect spheres with the help of our model AEW-BRM, the beads rounding machine.
LAPIDARY EQUIPMENT

BEADS ROUNding MACHINEs OR SPHERE MAKING MACHINEs
MODEL: AEW – BRM

STANDARD EQUIPMENT & ACCESSORIES
The base of this machine is that of a traditional drilling machine used in most fabrication shops. It is modified to make spheres of a pre-formed bead.

OPERATIONS DETAILS
The machine is used for grinding the beads into perfect spheres in a grinding medium of emery powder slurry. There are two steel plates grooved for a particular required size of beads/spheres. The grooved steel plates are mounted on the machine. The machine is started and pre-formed beads are loaded. These stones then get ground to perfect spheres with the help of the grooves and the emery slurry which continuously flows through.

OPTIONAL ACCESSORIES
The machine is supplied only with one set of standard size groove plates. All other required sizes of grooved steel plates and the emery powder are to be ordered separately.
LAPIDARY EQUIPMENT

BEADS CALIBRATING MACHINE
MODEL: AEW – BCM

STANDARD EQUIPMENT & ACCESSORIES
This machine is used for calibrating sphere beads. The machine is equipped with basic equipments.

OPERATIONS DETAILS
The machine is used for calibrating the beads into perfect spheres. There are two grinding disc grooved on the round side for a particular required size of beads/spheres. The grooved grinding discs are mounted on the machine opposite to each other. The distance between the two discs can be adjusted. The machine is started and pre-formed beads are loaded into a tray that drops them one by one into the operational unit. These stones run between the two grinding discs and get ground to perfect spheres with the help of the grooves. Beads continuously processed one by one.

OPTIONAL ACCESSORIES
The different sizes of grinding plates can be ordered separately based on the requirement.
CUSTOMISED MACHINES
LAPIDARY EQUIPMENT

AUTO-TIMED FACETING AEW-FPK MACHINE
MODEL: AEW – AFP

STANDARD EQUIPMENT & ACCESSORIES
The basic machine concept is exactly the same as that of our model AEW-FPK. However, the major difference is that this machine provides a functionality to provide timed faceting operation for an automated smooth and precise faceting operation.
LAPIDARY EQUIPMENT

BUFFING AND CUTTING MACHINE
MODEL: AEW – BUC

STANDARD EQUIPMENT & ACCESSORIES
The machine is concept is to provide the option of using any cutting or buffing disc for operating based on the requirement on a single machine. The machine is supported on a cast-iron base and mount. It comes equipped with a shaft and stoppers for holding cutting and buffing wheels. The cutters and buff wheels can be purchased separately.

OPTIONAL ACCESSORIES
Cutters, buffing wheel and polishing compounds.