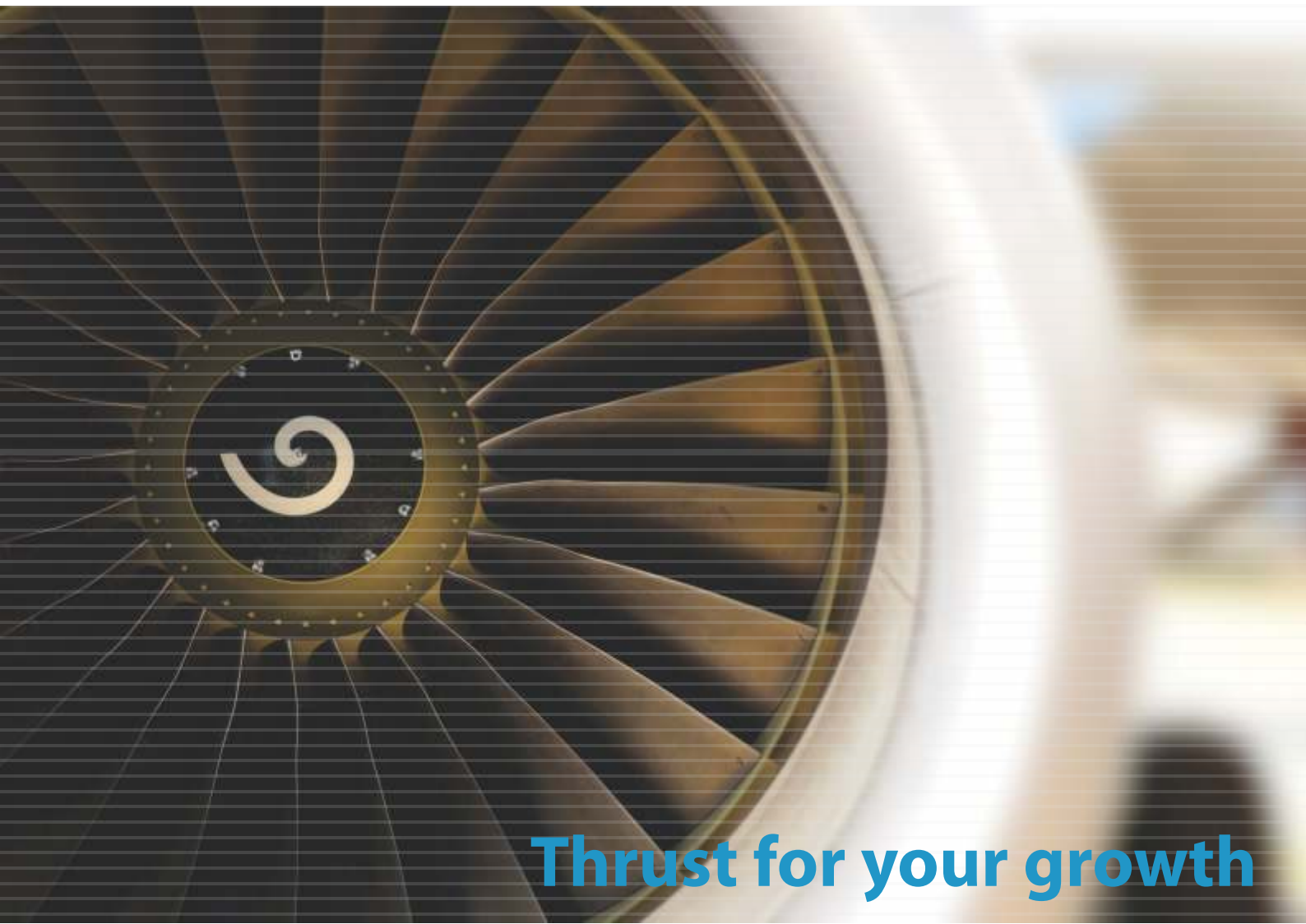




Kwality Products

An AS9100 Rev. C
& ISO 9001:2008 certified company



Thrust for your growth

BACKGROUND OF THE COMPANY

Late Mr. Suresh Uttarkar started Kwaliti products in year 1975 as a job-working unit. It was mainly engaged in the activity of machining various engineering components. With the gradual increase in the level of experience the company entered in the field of job development through reverse engineering. As the years passed, Kwaliti Products gained the reputation as a supplier with high quality, responsibility and ability to develop complex parts. In year 2004, Anand Uttarkar was deployed as the CEO of the company. Since then the company has targeted to be a global player in the field of aerospace components manufacturing.

Today the company has implemented ISO 9001:2008 and AS9100 Rev. C quality management systems to re-establish its, "System oriented approach". Based on the world class quality and delivery standards coupled with competitive cost structure, company is exporting aerospace components to different parts of the globe. With its exposure to international market, the company thoroughly understands the importance of maintaining quality, delivery and cost standards. We abide to maintain the consistency in our quality standards for the growth of our customers. All this is possible by its continuous investment in manpower through various training programs empowering its employees.



LEADERSHIP TEAM



BACKGROUND OF THE CEO

The CEO, Mr. Anand Uttarkar is a qualified engineer with a M.S. degree in Industrial engineering from Texas, USA and has more than 10 yrs. of experience in the current line of activity.



BACKGROUND OF THE GENERAL MANAGER

The GM, Mrs. Priya Bagul-Uttarkar is a Mechanical Engineer with a post graduation diploma in Tool & Die designing from Indo-German Tool Room, India.

BUSINESS PHILOSOPHY

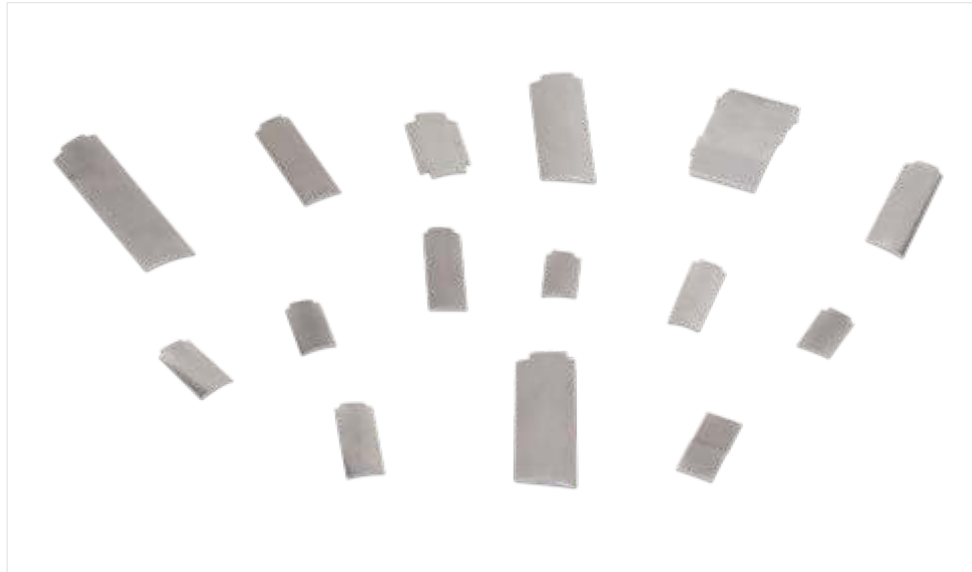
- We put our **Customers** first and strive to secure their loyalty through top quality service.
- We value our **Employees** and seek to help them achieve their full potential.
- We embrace **Professionalism** and seek **Excellence** in everything we do.
- **Humor** will be an essential part of our Business.
- We will **Deliver** as promised.
- We will not get in to **Rat** race.
- We will strive to create more **Energy** and **Drive** in the organization as we find it more important than intelligence.



BUSINESS STRENGTHS

- **Positive** mindset.
- **Energy** and **Drive** in the organization.
- **Adaptability** to customer requirements.
- Excellent **Team with** strong knowledgebase.

AEROSPACE



1. AIRFOIL VANES

Kwality Products is involved in the manufacturing of compressor vanes (stator) used in helicopter engines. The commonly used material for vanes is AMS-5510/(AMS-5613)/ AMS-5604. More than 35 types of vanes have been developed and manufactured. Typical process followed is-

- | | | |
|---|---|---------------------------|
| 1. Airfoil strip raw material
- supplied by customer | 4. Forming operation | measuring fixture |
| 2. Blanking operation | 5. Polishing operation | and CMM |
| 3. Deburring operation | 6. Inspection on profile
projector – contour | 7. Packing |
| | | 8. Dispatched to customer |



2. STATOR / VANE ASSEMBLY

The company has the ability to manufacture the entire stator vane assembly. All the sheet metal components can be made in house, like: airfoil vanes, washers with airfoil shape slots, circular band along with side collars. The spot welding can be done in-house while brazing process can be outsourced to a highly qualified brazing facility.



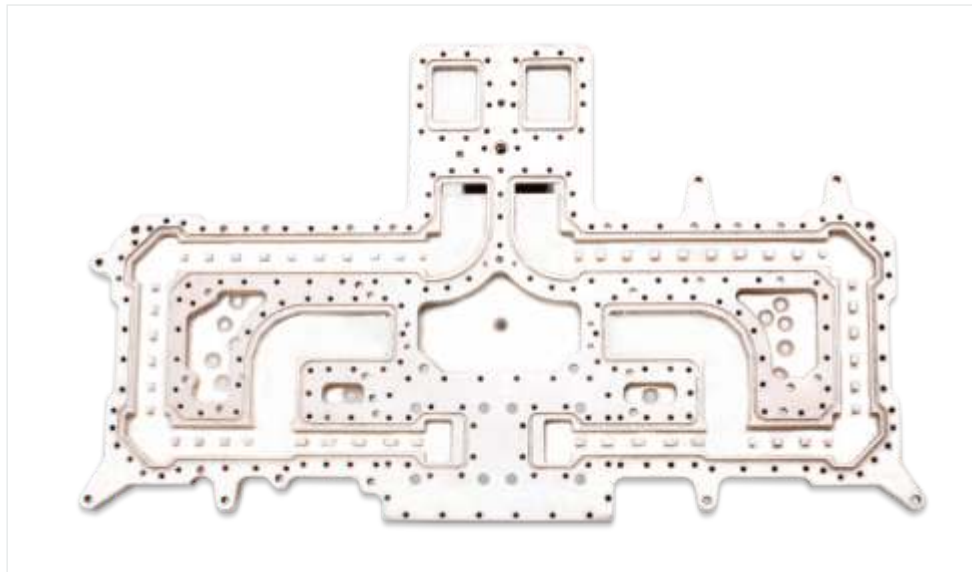
3. SHEET METAL COMPONENTS

Kwality Products is actively involved in manufacturing of small sheet metal components. Company has developed variety of compound tools, progressive tools, trimming and forming tools. With the state of the art tool room the company has the ability to develop complex sheet metal components.



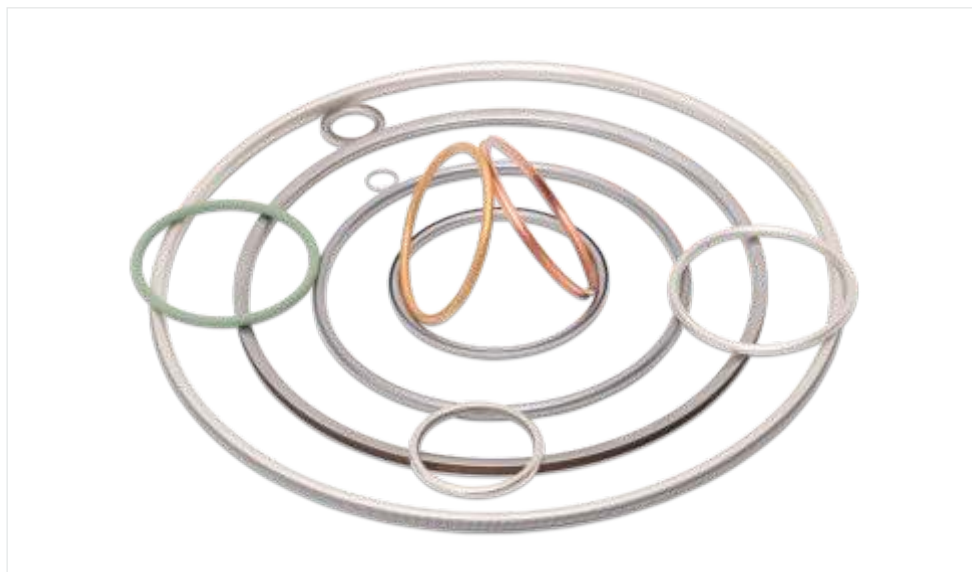
4. ROLL FORMING

Kwality Products has developed a 6 stage roll forming machine specially used to make circular rings with profiles. The machine has capacity to manufacture roll formed components with diameter -ranging 80mm to 400mm, width from 10 mm – 60mm and thickness up to 1.5 mm. A separate cut-off machine is available to achieve desired degree of ring. The bands/rings can have a taper or cone angle of 20 degree.



5. MACHINING

Over years Kquality Products has gained experience in machining precision aluminium components a wide variety of size range has been covered specially in Aluminium 6061 T6 material. Components as small as 15 mm in length to 350mm has been covered on its HAAS vertical machining center. A variety of conventional machines are used for roughing operation and further transferred to CNC machines. Due to this way of working we could reduce the overall machining cost.



6. METAL SEALS

Recently the company has formed a Joint venture to manufacture Metal o-ring, C-ring seals and Spring energised c-rings under the brand name, HTMS FUTOM.

METAL O-RING: SPECIFICATIONS AND APPLICATIONS

The metal o-ring seals can be used where non-metallic seals will not seal properly or do not offer the required reliability for the application, usually due to temperatures, pressures, or the environment. Metallic O-Ring Seals are long lasting seals and unlike non-metallic seals, they are not subject to failure due to incompatibility with the environment, out gassing or from deterioration due to age.

O-Ring Seals are generally fabricated from tubing consisting of stainless steel or high temperature alloys such as Inconel (currently in development). These materials are frequently used because they offer resilient properties that enable the seal to "Spring-Back".

Hollow metal O-Rings are used as static face type seals and should not be used as a dynamic seal. While the majority of seals are circular, many seals are produced in rectangular, racetrack, and other various shapes and configurations with limitations only on the corner radii.

• **Plating and Coatings** - plating or Coating of the O-Ring Seal is available for achieving the required performance.

METAL SPRING ENERGIZED C-RINGS

Spring Energised C-Ring for Internal Pressure | Spring Energised C-Ring for External Pressure

Metal CS-Ring for Internal Pressure (CSI) and External Pressure (CSE) are designed for high pressure and excellent tightness performance (system pressure energised). They require high bolting load and have good spring back.



7. SONOTRODE/HORN

Kwality Products has achieved great success in developing import substitute components. One of our import substitute product is Sonotrode/Horn. The Horn is mainly used in wire harness industry to weld copper wires. These sonotrodes are specifically tuned for 20 kHz frequency to give the optimum results. A Horn analyzer has been developed to check the existing frequency of a sonotrode.

Sonotrodes with a variety of serrations can be manufactured to meet the requirements of its customers.



8. ELECTRICAL CONTACT

Our company has developed Electrical contacts used in High voltage switchgears. The specialty of these contacts is they are made from sheet metals which earlier were made from solid blocks. Due to conversion from machining to sheet metal, the thickness of the electrical contact could be reduced considerably. Also it eliminates the entire machining process, which further reduce the machining cost and increases the production quantity. These Contacts are used in switchgears with 145 Kv to 400 Kv circuit breakers. The commonly used material is a combination of copper and silver.

DESIGN AND MANUFACTURING

The company has good capabilities in design and manufacture of Press tools using various CAD/CAM software's. Our engineers have access to various software's like Catia, Unigraphics, AutoCAD and DelCAM.

Also the production facility is supported by state of the art machines ranging from VMC, surface grinding to conventional machines. Company has rich experience in machining Aluminium components at very high precision level. In past 35 years Kwality Products have catered the entire range of industry from automotive, defence to aerospace with its high quality machining.



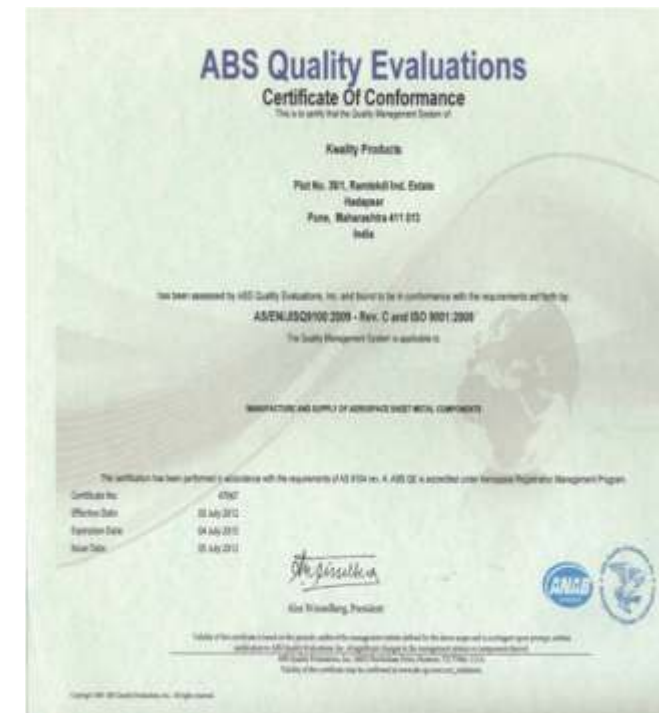
QUALITY ASSURANCE

Quality is of prime importance at Kwalty Products, to reassure the quality at each stage stringent inspection and SPC methods are deployed. Various gauging fixtures are developed to inspect the critical parameters.



SYSTEMS AND CERTIFICATIONS

Kwalty Products is an ISO 9001:2008 and AS9100 Rev. C certified company and is well supported by ERP software to maintain the documentation and the entire tracking from incoming raw material to despatch. The company has been approved by Rolls Royce for precision machining, press parts and fabrication as tier 2 supplier.





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