



POLLEN FORGE is the leading manufacturers and exporters of high quality Open Die Forgings. Our extensive experience and in-depth knowledge in the field of Open Die forgings enable us to provide our clients customized solutions for all their requirements. Driven by innovative engineering concepts and technology, we have made a strong presence in domestic as well as overseas market. Our manufacturing unit is equipped with sophisticated machines that provide great flexibility in the production process. Every batch of the product is tested on variety of parameters to assure compliance with International standards. We have been awarded with ISO 9001:2008 for following a well defined quality assurance plan. We always strive to achieving excellence through continuous improvement in product quality, delivery schedules and services. Our endeavor is to go beyond the expectations of the customer's to provide them a hassle free business experience.



Source of Raw Material: - From all over India reputed mini steel plant OR As per customer approved. steel plant



We manufacture open die forging components as mentioned below: -

Sr.	Description	Wt (Kg)	SIZE RANGE
1	FORGED ROUND BAR	500 to 5000	OD 140 TO 350 MM X LENGTH 6 METER MAX MM
2	FORGED SQUARE BAR	500 to 5000	140 X 140 TO 350 X 350 & LENGTH 6 METER MAX MM
3	FORGED FLAT BAR	500 to 5000	140 X 140 TO 350 X 350 & LENGTH 6 METER MAX MM
4	FORGED RING	50 to 2500	OD 500 TO 3000 MM & ID 400 TO 2900 & THK 80 TO 350 MM

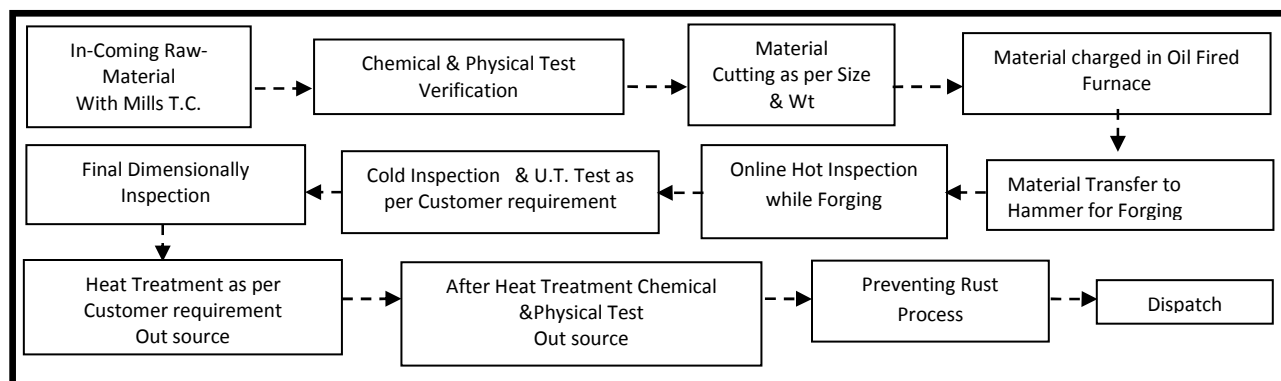
METALS : - We manufacture various types of forging components from various Grades: -

CARBON STEEL ALL GRADE	ALLOY STEEL ALL GRADE	STAINLESS STEEL ALL GRADE	CASE HARDENNING STEEL ALL GRADE	HOT DIE STEEL ALL GRADE
❖ A-105	❖ EN - 19	❖ 304	❖ 20MnCr5	❖ H 11
❖ CLASS – II	❖ EN – 19 A	❖ 304 L	❖ 16MnCr5	❖ H 12
❖ CLASS – III	❖ EN – 24	❖ 3016	❖ CK 15	❖ H 13
❖ CLASS – IV	❖ EN – 26	❖ 316 L	❖ 17CrNiMo6	❖ DB6 (1.2714)
❖ CLASS – V	❖ EN – 14	❖ 310	❖ 16CrNi6	❖ P20
❖ EN – 8	❖ EN – 14 A	❖ 410	❖ EN 351	❖
❖ EN – 8 D	❖ EN – 14 B	❖ 420	❖ EN 353	❖
❖ EN - 9	❖ EN – 15	❖ 431	❖ EN 354	❖
❖	❖ EN – 15 A	❖	❖ SAE 8630 / 8620	❖

Process Control

The process control of our plant has been designed in such a way that all the manufacturing activities are under one roof and the flow of material process automatically which reduce the manpower, and waiting period between two processes.

➤ PROCESS FLOW CHART



POLLEN FORGE has its own inspection plan for all the components and its processes at different stages of production.

1. Incoming Material Inspection: - In-Coming Materials undergoes for Visual Inspection, Physical & Chemical testing. Chemical, metallurgical and physical testing is also carried out as per the control plan or as per customer's requirements. After approval of the material in the laboratory, color code is given to each and every bar as per the material grade. Physical testing e.g. upset test, step turn test, tensile test, Impact test; macro etching is also carried out. Metallurgical testing of the material e.g. Inclusion Rating, Grain Flow, and Microstructure is also carried out.



2. Process Inspection: - Inspection is carried out at every stage of production at different stages e.g. Cutting Shop, Forge Shop, Heat Treatment Shop. Each shop or processing department has its own inspection plan to satisfy the customers' needs depending upon the experience.

3. Cutting Shop: - All the cut pieces are weighed as per cut weight and stacked separately as per the grade with color-codes.

4. Forge Shop: - Furnace Temperature is controlled by the temperature controller which is provided in each furnace. Hot inspection is done at every interval and 100% visual inspection are done after shot blasting.



5. Heat Treatment: - We are doing normalizing, annealing, Tempering Solution annealing, Isothermal annealing. Heat treatment furnace is equipped with temperature controller with graph recorder. The personnel responsible for the process are under direct supervision of qualified metallurgist. Samples are drawn from each batch, from different locations, and then microstructure & hardness are checked as per customer requirement. All care is taken to control the hardness within a navigation of hardness from piece to piece up to 10 BHN at out source.

6. Final Inspection: - All the Forged parts to this shop following 100% inspections and Reporting are carried out as per plan.

	Visual inspection	We Inspect Crack, over lapping, twists and Bending.
	Dimensional inspection	Critical dimensions like thickness and references points for 1 st operation at the customers end are checked 100%.
	Packing	Packing of the components and dispatches are made as per customer's requirements.

WE WORK FOR VARIOUS SEGMENTS: -

- | | | |
|-------------------|----------------------|---|
| ❖ Cement Plants | ❖ Textile Industries | ❖ Thermal Plant |
| ❖ Steel Plant | ❖ Gear Industries | ❖ Petroleum Plant |
| ❖ Pharmaceuticals | ❖ Atomic Energy | ❖ Windmill Plant |
| ❖ Power Energy | ❖ Ship Building | ❖ Steel Re-Rolling Mills |
| ❖ Fertilizers | ❖ Railways | ❖ Angle Hoist Industries |
| ❖ Shipping | ❖ Oil & Gas Refinery | ❖ Petrochemical Industries |
| ❖ Sugar Mills | ❖ Oil Exploration | ❖ Paper Plant and Chemical Plant Line Fitting |
| ❖ Hydro Plant | ❖ Automotive | ❖ Material Handling Equipments Industries |

Best Regards,

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