

HOT FORGING

Gestión de Compras designs, develops and manufactures a huge range of pieces for hot forging.

PROCESS:

Generally, forging is the process of forming and shaping metals through the use of hammering, pressing or rolling. Hot forging is a plastic deformation of metal at a temperature and strain rate such that recrystallization occurs simultaneously with deformation, thus avoiding strain hardening. For this to occur, high workpiece temperature (matching the metal's recrystallization temperature) must be attained throughout the process.

The basis procedure for hot forging is relatively simple. Metal stock in the form of either a bar or billet is first heated into the hot working temperature range to improve ductility. Then the material is squeezed or hammered in a series of tool steel dies to convert the stock into the finished shape. Excess material in the form of flash is produced as a necessary part of forging, and the final processing stage is to remove the flash to yield the finish forged part. Hot forging is a near net shape process, so parts produced by hot forging require machining, specialty on surfaces that will locate with other parts in a final product.

There is a wide variety of processes that can be classified under the definition of hot forging; some of these processes are open die, impression die or closed die, ring rolling, warm forging and isothermal forging. Isothermal forging is a special forging form because in this process, materials and dies are heated to the same temperature.

Hot Forging Advantages (Vs Cold Forging)

- Elimination of chemical impurities.
- Enhanced ductility.
- Homogenized grain structure.
- Accurate forming.
- Complex shapes.
- Resistance to cracking.
- Parts of higher weight and volume.

PRODUCTION:

In **Gestión de Compras** we are able to support in component development and process planning through die fabrication and implementation of systems for efficient production. We are professionals in a wide range of production of hot forgings. In every new development we adapt to customer needs to obtain a product with the best quality.

Our experience in this sector includes the manufacture of parts made by cold and hot forging, either standard products or developments drawings.



MATERIALS AND PRODUCTS:

Moreover, virtually all metals have alloys that are forgeable, the most common forging alloys include: carbon steel, stainless steel, aluminum, copper, brass, bronze, iron, nickel, cobalt, titanium, magnesium...

Hot forging is a process that can be used to produce a wide variety of parts used in a lot of sectors such as aerospace (aircraft engines, airframe and auxiliary equipment...), automotive (joints, chassis parts, crankshafts...), electricity (power generation, transmission...) machinery and equipment, hand and industrial tools, construction, mining, plumbing (pipeline fittings, valves, flanges...), ship building, railroad equipment...



STANDARD AND CERTIFICATES:

We have the means to ensure our products comply the general regulation and the specific certificated regulations in manufacturing products that requires them.

- ISO 9001, TS 16949 and ISO 14001.
- QS 9000, AS 9100.
- EN 10243, EN 10254, EN 10222,...

CONTACT:

In **Gestión de Compras** work with a wide range of customers from different sectors but have in common the search for products that suit your needs at the best Price and the guaranteed máximo quality. Check with us about any product. We have a qualified staff who will advise you.

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