

Our Products: aluminum slugs

HAOMEI ALUMINUM is the leading manufacturer in China who is committed to the production and commercialization of **aluminum slugs and discs**. Located in Zhengzhou, Henan. HAOMEI is committed to providing the highest quality aluminum product for new and existing markets around the world.

All the slugs of different shapes are heat-treated, soft - annealed and the surface tumbled or sand blasted. The slugs are widely used for the manufacturing of aluminum containers or Collapsible Aluminium tubes for cosmetics, pharmaceutical, beverage containers, and many other packaging solutions.

Products description

Material	Aluminium Slugs with or without holes
Alloy	AA1070
Purity	99.70% minimum
Grain Sizes	Grain 5
Hardness	16 to 19 HB
Thickness	3.00 mm. to 10.00 mm
Diameters	We can supply aluminium slugs of 99.7% Al purity from our aluminium rolling mill. Slugs from Diameter 20 mm to 116 mm can be supplied. The following are the different diameters that can be readily supplied. 20mm, 25 mm, 27mm, 40mm, 45 mm, 50 mm, 54 mm, 63.5 mm, 74 mm, 75 mm, 85 mm, 89 mm, 90 mm and, 116 mm. Slugs to customer's specifications can also be supplied.
Tolerances	According to norms DIN 59604
International Standards	DIN 59604, 1721, ASTM E 112, MIL STD 105 D, EN 570
Shape	Flat, Concave, Preform
Weight	Slugs weight (grs.) is determined by the nominal dimensions of the diameters (mm), thickness (mm) and aluminum density.

Packing	Corrugated cardboard boxes (25 kg. each), on wooden pallets.
Finish	Tumble Rolled or Shot Blasted

Chemical Composition (% maximum allowed by element)

>% Si	>% Fe	>% Cu	>% Zn	>% Mg	>% Mn	>% Ti	>% Other
0.1	0.2	0.04	0.04	0.03	0.03	0.03	0.01

Your products: aluminum slugs

Aluminium permanently prevents the penetration of oxygen. This essential barrier property makes the

Aluminium tube a most appropriate and well established packaging in the food, cosmetic and pharmaceutical markets.

Herbal Ointments / Remedies	Hair Colorant	Hair Fertilizer
Petroleum Jelly	Pharmaceutical Products	Adhesives & Lubricants
Tomato Puree, Mustard,	Mayonnaise ect.	Art paints/Dyes

In the packaging of sensitive goods, the Collapsible **Aluminium tubes** offers unique advantages - today as well as in the future. With its outstanding barrier properties, the Collapsible Aluminium Tube is the ideal packaging to reliably protect a product against UV-light/sunlight, foreign odour and loss of perfume and aroma, while the tube itself is absolutely scent-neutral and can be sterilized and coated with an inert internal lacquer.

Collapsible **Aluminium tubes** consist of 99.7% pure Aluminium, which makes the recycling easy and economically viable.

The tube is formed by impact extrusion from a small disk of Aluminium called a slug. The slug size is according to the desired tube dimension and determines either an open tube or a closed tube with a membrane over the orifice. To make the tubes pliable and sterile, they are heat treated in an annealing oven



aluminum slugs: Production Process

Smelting-This process of production starts by loading furnaces with raw aluminum in form of aluminum ingot (alloy AA1070, purity 99,7%), which is supplied by local high-class aluminum producers. Once furnaces are loaded temperature is brought up in order to melt the metal; The melt is subject to treatment using salts from which the chlorine has been removed, in order to produce a melt that is as low as possible in hydrogen and oxides. Stirring, dead-melting and slag removal is done afterwards. In the

meanwhile, the furnace exit spouts and troughs temperature is set to receive the melt when it is ready for casting. By hydraulically tilting means the furnaces are emptied in a uniformly controlled manner. To ensure a consistent metal quality with low oxide levels, the molten aluminum is degassed, refined and filtered before it enters the casting wheel. All atmospheric emissions from the furnaces are within the environmental regulations due to the fact that we use only 99.7% pure aluminum.

Hot/Cold Rolling-The melt is poured into the strip casting wheel, which rotates at a speed of up to 7 meters/min. A solid strip of 180 mm wide by 20 mm thick is formed between the grooved periphery of the strip casting wheel and the steel belt. The strip casting wheel is water cooled. The cast strip leaves the unit at a temperature of about 350 oC in a horizontal direction without any transverse deviation. It is immediately hot rolled down by up to 55% by means of the Hot Roll Mill. Following this, it passes through a cooling bath before being cold rolled to its final thickness. Gauge control devices assure the strip thickness tolerance during the Cold Roll Milling process. Each coil is properly identified with casting batch number, weight, and thickness. The finished coils are then stored to await stamping.

Stamping-This stage counts with high speed stamping presses, each one has a decoiler where a coil is mounted. The strip passes through a straightener into the press, and at the center base of it is located the die. This die has a series of punches that has the size of the diameter of the slug. The strip is lubricated while it is being punched. Cut slugs fall on a conveyor belt which takes them into rectangular baskets. Punched strips (scrap) are then cut in pieces and conveyed back to the foundry area to be compacted into 50lb bales before sent back to the furnace. In this process we get about 50% of slugs for each ton of punched strip. This of course might change according to the slug size.

Annealing (Thermal Treatment)-This stage counts with three tunnel type annealing furnaces,

electrically heated. The aim of annealing is to produce a material with minimum strength, maximum ductility, soft temper and to burn the lubricant used during the stamping process. In order to obtain this, metal baskets with slugs are placed inside an annealing furnace and the temperature is raised to 520 oC for a timed cycle of four hours, temperature and time necessary to occur annealing. With this we obtain a Brinell hardness of 17 to 19 HB. Total time of loading furnace, pre-heating, annealing and unloading is around eight hours.

Surface Finish-The surface of the slugs is treated in order to obtain a rough texture. This is done by one of two methods: tumbling or shot-blasting. Tumbling, the first of the two methods, is done by placing the slugs inside of a mechanically operated gyratory drums. Slugs hit each other hence roughening the surface. Final customer needs this roughness in order to apply a lubricant necessary for cold extrusion. If slug has an inner hole, surface finish is done by a shot-blasting machine that uses aluminum shots to shoot the slug while they are rotating on a belt. The surface finish stage last between 12 and 15 minutes depending on slug size. This stage also makes sure no scrap is attached to the border of the slug. Once surface treatment stage is completed, slugs are transported on a conveyor belt to a hopper which will feed the next stage.

Selection and Packing-In this last stage slugs exit the hopper by means of a conveyor into automatic packing lines. Slugs keep going on the conveyor until they fall inside a cardboard box which is filled until it reaches 25 Kg. Each box is properly weighted and identified. Once boxes are marked with customers information, they are placed on wooden pallets, containing 40 boxes of 25 kgs each. Each pallet weights 1,000 kg which is protected with plastic wrap ideal for exportation.

Company profile: About Haomei

Haomei Aluminum is located in famous aluminum capital of Zhengzhou, Henan province. We are professional aluminum manufacturer, mainly produces series-1, series-3, series-5, series-6 and series-8 pure aluminum and aluminum alloy plate/strip/foil products, such as hot -rolled thick plate, ROPP cap materials, **aluminum circle/disc** for cookware and lighting, aluminum drilling entry for PCB, aluminum tape for aluminum plastic tube, aluminum baseplate for PS plate, aluminum bright finish tread plate, aluminum circles, aluminum checkered plate, PP cap materials and others. These products are generally applied to air-conditioner, washing machine, refrigerator, cosmetic package, printing, building decoration, aluminum ROPP cap, bus floor, and telecommunication cable etc. fields.

We would like to highlight our aluminium circle, aluminum ROPP cap materials, aluminum hot rolled plate and aluminum tread plate with good quality and competitive price. Haomei Aluminum sells its products widely to United State, Brazil, Chile, Mexico, Germany, UK, Italy, Bulgaria, Czech, Saudi Arabia, UAE, Iran, Bangladesh, India, Sri Lanka, Vietnam, Japan, Korea, Singapore, Indonesia, Philippines, Austria, Fiji, South Africa etc more than 40 countries.

Haomei Aluminum has total annual production capacity of 200,000 metric ton **aluminum sheet**, strip and foil. It is equipped with 1+4 hot tandem rolling line, 4 cold mill production lines, and 5 foil mill production lines, and a complete complex of fishing equipment.

Serve our Clients with Heart and Soul has always been the motto of our company. Haomei Aluminum is eager to take cooperation with all the customers from home and abroad to create a wonderful future together!!!



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