

BAHRAIN ALLOYS MANUFACTURING CO. W.L.L

Your Specialist Manufacturer of

FOUNDRY AND MASTER ALLOYS

from Primary Aluminium



ALLOYING THE WORLD SINCE 1996

THE SIGN OF QUALITY
www.bahrainalloys.com

ABOUT US

Bahrain Alloys Manufacturing Co. was incorporated in 1996 as one of the first downstream companies of Bahrain's aluminium smelter. Since that time BAMCO has become a leading manufacturer of primary aluminium foundry alloys and master alloys. An installed capacity of 30,000 mt and the direct access to smelter aluminum make BAMCO a reliable partner of the aluminum processing industry.

FOUNDRIY ALLOYS

BAMCO produces foundry alloys according to all current standards as well as custom made in the form of ingots and sows. The foundry industry appreciates the high purity of the alloys for castings for extreme conditions. BAMCO offers its customers an extremely flexible service to ideally adapt to the requirements of the market.

MASTER ALLOYS

BAMCO's aluminium master alloys are the first choice for achieving precise melt composition as required for billets, slabs and wires. BAMCO covers the complete range of master alloys for the addition of silicon, copper, manganese, chromium, magnesium, iron and titanium. All master alloys are known for highest yield, fast dissolution and minimal inclusion of unwanted elements. Master alloys make alloying easy.

SKILLS & SERVICES

BAMCO has invested heavily in the latest melt treatment technology and developed into a recognized quality supplier. All BAMCO products are manufactured to international standards and managed by highly experienced and qualified personnel. BAMCO meets your alloy needs with the flexibility the market demands today and is your partner for your metallurgical tasks and alloy developments.

FOUNDRY ALLOYS

Liquid primary aluminium feeds production for highest efficiency and purity.

HOW WE DO FOUNDRY ALLOYS

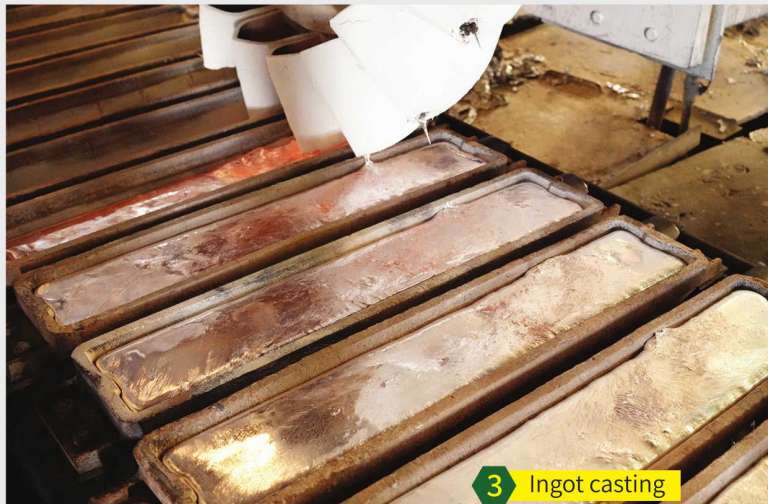
- Intake of liquid primary aluminium
- Alloying of silicon, magnesium, copper, ..
- Degassing
- Casting to ingots



1 Reception of liquid aluminium

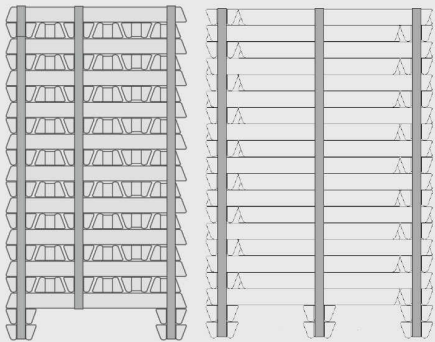


2 Degassing

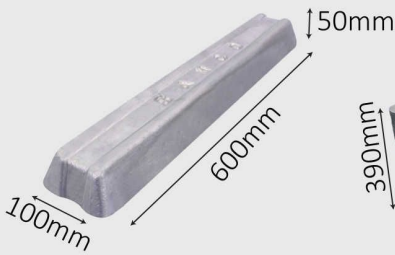


3 Ingot casting

Alloy	Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Sr
A356.2	6.5-7.5	0.12	0.10	0.05	0.30-0.45	-	0.05	0.20	-
A365	10.0- 11.5	0.11	0.01	0.60-0.70	0.20-0.25	0.01	0.01	0.06-0.10	0.015-0.03
LM6	12.0- 13.0	0.6	0.1	0.5	0.10	0.1	0.20	0.20	-
LM28	17- 20	0.7	1.3-1.8	0.6	0.8-1.5	0.8-1.5	0.1	0.2	-
AC4CH.2	6.5- 7.5	0.15	0.05	0.03	0.30- 0.45	0.03	0.03	0.20	-
AC7A.2	0.20	0.20	0.05	0.60	3.6- 5.55	0.05	0.05	0.20	-
EN AC-42100	6.5-7.5	0.15	0.03	0.10	0.30-0.45	-	0.07	0.18	-
EN AC-47100	11.0-13.0	0.7-1.2	0.7-1.2	0.3-0.5	0.35	0.3	0.6-0.8	0.1	-
AC601	6.5-7.5	0.20	0.05	0.05	0.30-0.40	-	0.05	0.20	0.025-0.045
CC401	12.0-13.0	0.40	0.10	0.05	0.05	0.05	0.10	0.20	0.03-0.04



Stacking Options



Weight - 7 Kgs (Approx.)



Weight - 1050 Kgs (Approx.)

MASTER ALLOYS

BAMCO’s induction technology ensures best homogeneity.

HOW WE PRODUCE MASTER ALLOYS

- Inductive melting of primary aluminium
- Alloying at high temperature
- Inductive stirring
- High temperature ingot casting



1 Alloying at high temperature



2 Inductive stirring



3 High temperature ingot casting

AlSi20

AlSi50

AlMn20

AlTi10

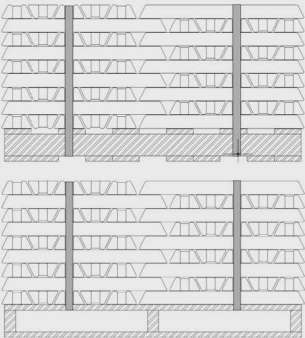
AlCu50

AlFe20

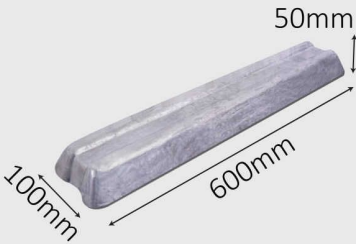
AlCr10

AlMg50

typical (%)	Si	Fe	Cu	Mn	Mg	Zn	Ti	Cr	Ni	Pb	Sn	Ca
AlSi20	20.8	0.174	0.000	0.003	0.001	0.001	0.013	0.001	0.006	0.000	0.000	0.000
AlSi50	50.3	0.185	0.004	0.006	0.004	0.010	0.030	0.004	0.012	0.005	0.005	0.000
AlMn20	0.066	0.103	0.004	20.1	0.000	0.000	0.003	0.000	0.006	0.000	0.000	0.000
AlTi10	0.000	0.197	0.021	0.016	0.007	0.037	10.3	0.010	0.034	0.011	0.030	0.023
AlCu50	0.069	0.107	49.5	0.007	0.003	0.031	0.003	0.005	0.014	0.026	0.072	0.001
AlFe20	0.045	20.1	0.004	0.091	0.001	0.011	0.004	0.010	0.016	0.008	0.033	0.001
AlCr10	0.000	0.159	0.000	0.004	0.002	0.016	0.004	9.8	0.014	0.002	0.002	0.002
AlMg50	0.051	0.099	0.000	0.000	49.6	0.000	0.004	0.000	0.003	0.000	0.000	0.000



Stacking Option



Weight - 7 Kgs (Approx.)



Weight - 1000 Kgs (Approx.)

QUALITY

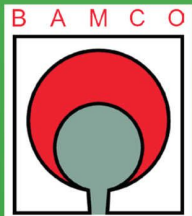
BAMCO operates a total quality management system registered to ISO 9001:2015. State-of-the-art analytical systems ensure highest quality standards.



Metal samples are taken at the beginning, during and at the end of casting and analyzed to meet the customer's specification. The two optical emission spectrometers for metal analysis trace 25 elements to ensure the purity of the metal. Examination of the ingot's cross section prove the absences of pores and the efficiency of degassing.

BAMCO is committed to constant development and proud to promote the aluminium industry of Kingdom of Bahrain and worldwide.





ALLOYING THE WORLD



P.O. Box 5343, Manama, Kingdom of Bahrain.
Tel: +973 17830011, Fax: +973 17830060,
Email: info@bamco.com.bh - www.bahrainalloys.com

