

Your Sustainable Partner in Aluminium Casting Solutions



Alteams



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YOUR SUSTAINABLE PARTNER IN ALUMINIUM CASTING SOLUTIONS

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About Alteams

YOUR SUSTAINABLE PARTNER IN ALUMINIUM CASTING SOLUTIONS

The history of Alteams stretches back over half a century, with roots in industrial foundry operations in Finland and Sweden in the 1940s. Alteams is today a privately owned Finnish company. Building on this solid foundation in the northern industrial environment, Alteams has expanded into a truly global enterprise with five sustainable production facilities located in Finland, China, Poland and India.

Alteams employs over 1,700 real professionals. The company has regional customer support units in all manufacturing locations. Alteams offers more than aluminium casting using four different casting methods. The company has its own dedicated tool design and manufacturing facility in China. Through collaboration with its long-term strategic partners, Alteams can meet a wide range of production needs, from single prototype units to mass production, and for components ranging from one hundred grams up to one ton.

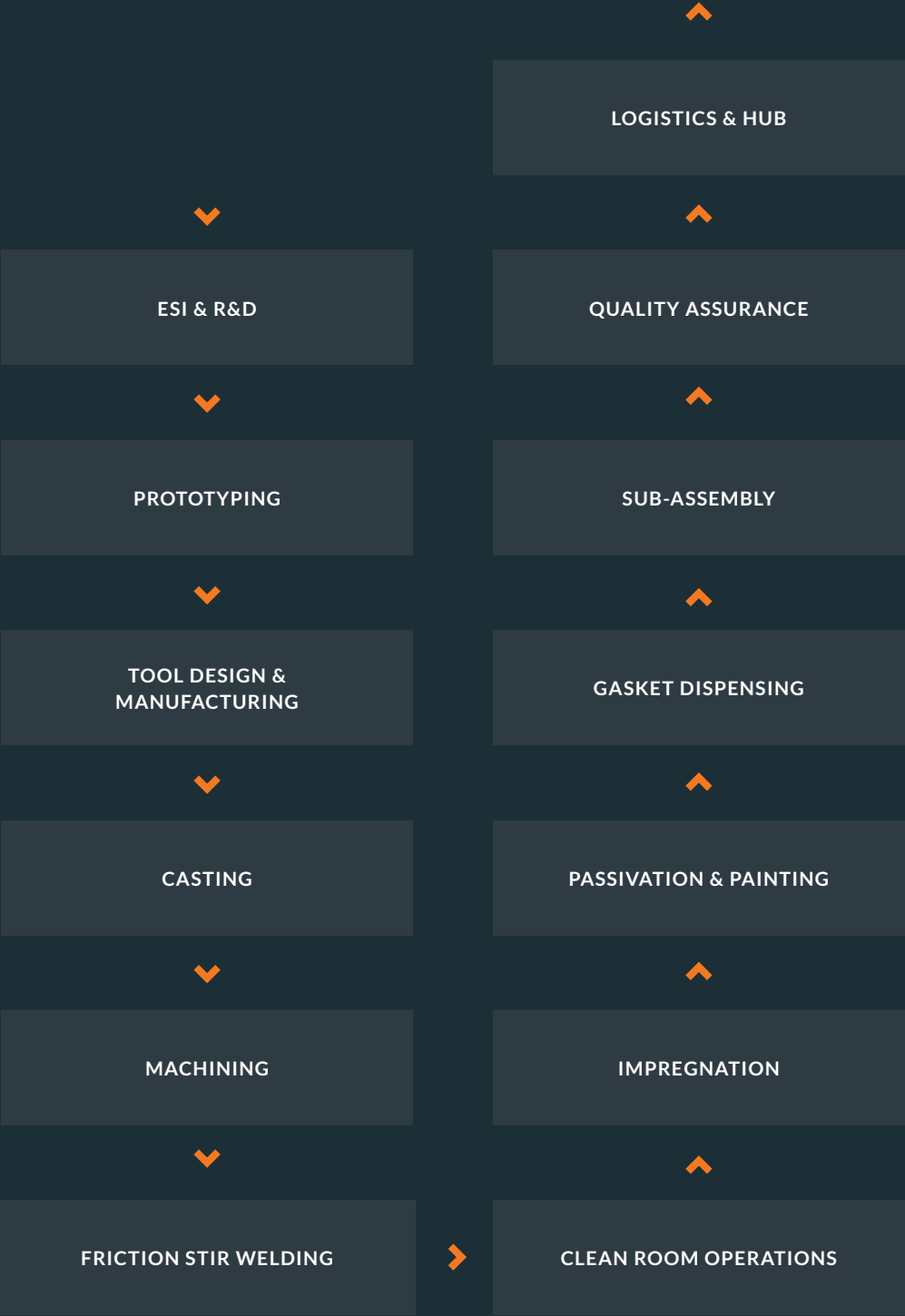
Technological development has given Alteams a range of competencies that goes beyond regular foundry operations, from initial R&D and prototyping all the way to mass production and deliveries. Alteams has its own R&D operations and a vast experience in producing innovations in aluminium casting and added value processes.

This makes Alteams your excellent partner and ideal choice for you at every stage of your product development and manufacturing. Alteams works closely with customers to solve their casting design, aluminium alloy, heat transfer, shielding, and sealing challenges.

The quality objectives at Alteams are to produce high-quality products on time and at a cost effective and competitive price level. It results in the best customer satisfaction and continuous improvements in process efficiency. Operational Excellence is a part of the continuous improvement program. The target is to minimize non-value-added activities in daily operations and minimize quality costs. Best practices are shared systematically between our factories.

Alteams Quality Management System is certified in accordance with ISO 9001, 14001, and 45001 standards for all Alteams factories, as well as the automotive standard IATF 16949 for the Alteams facilities in Poland, China, Finland (Laihia), and India.

OUR VALUE CHAIN



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graph TD; A[ALTEAMS CARBON REDUCTION COMMITMENT] --> B((REDUCING OUR CARBON FOOTPRINT)); A --> C((ENHANCING PROCESSES AND IMPROVEMENT)); B --- C;
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ALTEAMS CARBON
REDUCTION COMMITMENT

REDUCING
OUR CARBON
FOOTPRINT

ENHANCING
PROCESSES AND
IMPROVEMENT

OUR COMMITMENT TO THE FUTURE

Strong focus on sustainability is an essential part of our operations. Alteams has created a Sustainability Program using the UN's Sustainable Development Goals as a framework. We not only strive to be a responsible operator, but also to inspire others to act more responsibly.

Sustainability Program is to reduce our company's carbon footprint. Alteams Carbon Reduction Roadmap provides a structured approach to systematically reduce our carbon footprint while enhancing processes and continuous improvement.

CARBON REDUCTION ROADMAP

2019 > 37 178 T CO₂

Defining the scope and choosing a carbon footprint methodology.

2020 > 34 167 T CO₂

12,00 m² rooftop solar panels installed in Alteams Suzhou.

2021 > 35 919 T CO₂

A target was set to reduce emissions by 50% from 2019 baseline by 2030.

Moved to fossil free electricity in Finland.

Relocated ASIT into Alteams Suzhou main facility.

2022 > 27 114 T CO₂

12,00 m² rooftop solar panels installed in Alteams Suzhou.

2023 > 20 412 T CO₂

ISO 50001 EnMS certification in Suzhou.

Begin to define CO₂ emission of aluminium used as raw material.

2024 > 28 800 T CO₂

Recovery of heat from melting and casting operations to be utilized to warm up water for washing line in Suzhou.

Commissioning of new gas furnace in Poland.

Increasing the share of emission free electricity in Suzhou.

2025 > 27 000 T CO₂

Recovery of heat from melting and casting operations to be utilized for heating the buildings in Laihia and Poland.

Increasing the share of emission free electricity in Poland.

Commissioning of new holding furnaces in Poland to achieve better energy efficiency.

TARGET

2026 > < 25 400 T CO₂

Permanent magnet conversion for AC motors in Suzhou to achieve better energy efficiency.

Further increasing the share of emissions free electricity in Poland.

2027 > < 23 700 T CO₂

Installation of photovoltaics system in Alteams Poland

2028 > < 22 000 T CO₂

Replacement of older die-casting machines to more energy efficient ones in Poland.

Installations of energy management technology in Suzhou.

2029 > < 20 300 T CO₂

2030 > < 18 600 T CO₂

1. ALUMINIUM ALLOYS USED AT ALTEAMS AND APPROXIMATE EQUIVALENCES AGAINST COMMON STANDARDS

Alloy Types	Casting Method	European EN 1706	International ISO 3522	German DIN*	German VDS	English BS*	American AA/ASTM	Italian UNI*	French NF*	Japanese JIS
AlSi12	S/K	EN AC-44100	AlSi12	3.2581	230A	LM6	B413.0	4514	A-Si3	AC3A
AlSi12	D	EN AC-44300	AlSi12(Fe)	3.2582	230	LM20	A413.0	5079	A-Si2	ADC1
AlSi10Mg	S/K	EN AC-43000	AlSi10Mg	3.2381	239A	LM9		3049	A-S10G	AC4A
AlSi10Mg(Fe)	D	EN AC-43400	AlSi10Mg(Fe)	3.2382	239		A361.0	5074	A-S9	ADC3
AlSi7Mg	S/K	EN AC-42100	AlSi7Mg0.3	3.2371		LM25	A356.0	3599	A-S7G	AC4CH
AlSi9Cu3	S	EN AC-46200	AlSi8Cu3	3.2163.01	2264	LM24	A380.0			
AlSi9Cu3	D	EN AC-46000	AlSi9Cu3(Fe)	3.2163.05	5076	LM24	A380.0	5075	A-S9U3A	AC4B
AlSi10Cu2	D	EN AC	AlSi10Cu2(Fe)			LM2	A383.0	5076	A-S9U3	ADC10
AlSi7Cu2	S	EN AC-46600	AlSi7Cu2			LM27				ADC12
AlSi6Cu4Ni	S	EN AC-45000	AlSi6Cu4	3.2151	225	LM21		7369	A-S5U2	AC2B
HTC Alloy	D									

S = Sand Casting, K = Permanent Die Casting (Low Pressure Casting), D = High Pressure Die Casting, HTC Alloy = High Thermal Conductivity

NOTE Standards are not equal with each others.
Specified alloy composition to be clarified case by case.

*Old national standard



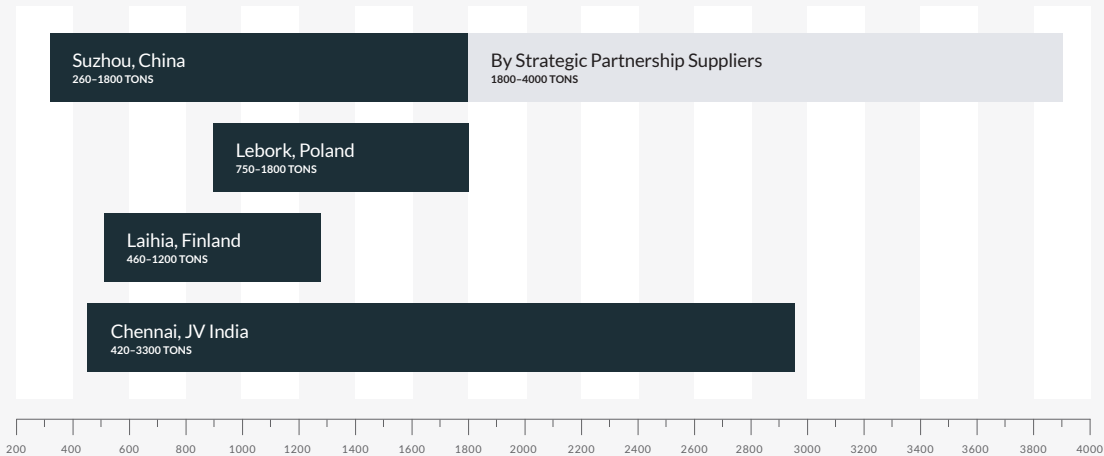


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2. COMPARISON OF ALTEAMS CASTING METHODS

	Sand Casting	Low Pressure Die Casting	High Pressure Die Casting
Weight of the casting, kg	0.1–800	1–70	0.05–30
Annual volume, pcs	0.1–800	100–10 000	5 000–500 000
Pattern / mould cost	Relatively low	Moderate	Relatively high
Cost of changes	Low	Moderate	Relatively high
Flexibility of design	Very high	Relatively high	Relatively high
Minimum wall thickness, mm	4–6	3–4	0.8–1.5
Dimension accuracy	Fairly good	Good	Very good
Possible surface roughness, Ra	≥6.3 (12.3)	≥3.2	≥1.6 (0.8)
Casting alloys	AlSi10Mg, AlSi7Mg, AlSi9Cu2, AlSi7Cu2	AlSi10Mg, AlSi12	AlSi9Cu3Fe, AlSi12, AlSi10Mg, AlSi10Cu2(Fe), HTC
Delivery time for samples, weeks	3–6	8–15	8–20
Special features	Heat-treatable, Friction stir-weldable	Heat-treatable, Friction stir-weldable	Heat-treatable T5, Friction stir-weldable, HTC
Alteams Factory	Loppi (Finland)	Laihia (Finland)	Laihia (Finland), Lebork (Poland), Suzhou (China), Chennai (India)

3. RANGE OF ALTEAMS HIGH PRESSURE DIE CASTING MACHINES





Our Locations



LOCAL STRENGTH.
GLOBAL REACH.

- ▣ Head Quarters
- Production Site




CONTACTS

- **Finland, Laihia**
Alteams Finland Oy, Laihia
Länsitie 61
66400 Laihia, Finland
+358 201 339 500
- **Finland, Loppi**
Alteams Finland Oy, Loppi
Valutie 2
12700 Loppi, Finland
+358 201 339 500
- **Poland**
Alteams Poland Sp. z o.o.
ul. Abrahama 10
84-300 Łęborg, Poland
+48 887 460 003
- **China**
Alteams (Suzhou) Co. Ltd.
No. 388, Chao Hong Road
215129 Suzhou New District, China
+86 512 6665 8400
- **Ashley Alteams India**
Joint venture Ashley Alteams India Ltd.
No.8, SIPCOT Industrial park
Chellaperumpulimedu Village
Sozhavaram Post
Akkur (Via), Vembakkam Taluk
Tamilnadu – 631 701, India
+91 404182 675616
reachus(at)ashleyalteams.com





Länsitie 61
FI-66400 Laihia, Finland
+358 201 339 500
info(at)alteams.com
www.alteams.com

 Follow us on LinkedIn



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