

SUOMI VALIMO

Flexible iron
casting supplier



Engineering and design Machining supply

Suomivalimo is a supplier of medium heavy cast iron components and is a reliable, flexible and local partner to its customers. The foundry offers also engineering and casting design as well as machining and supply chain management.

We produce hand moulded cast iron components from 200 kg to 5,500 kg based on furan resin technology, in small batches and single pieces.

Our foundry in Iisalmi, Finland, employs more than 100 professionals. The annual production capacity is 10,000 – 13,000 tons and the area of the production facilities is 15,000 m².

Suomivalimo is an independent and privately owned company. It was established in 1918 in Helsinki and relocated in 1975 to Iisalmi.



> Production technology

Moulding and core making are based on furan resin hand moulding technology. Melting takes place in modern and efficient medium frequency induction furnaces. Besides the traditional manual methods also a robot is used in fettling.

If necessary, the products are heat treated in our own furnaces (stress relieving, annealing, ferritizing and perlitizing). Austempering is sourced from the local subcontractors.

Products can be painted in the foundry using epoxy primer or the painting phase can be outsourced to a subcontractor locating nearby.

chain management

> Pattern equipment

The pattern equipment is sourced from a subcontractor network. We offer a suitable pattern solution to meet the customer's needs based on production quantity and durability. A normal serial pattern is made of wood and can typically be reused some 500 times. A lighter wood pattern is suitable for some 20 - 50 moulding times. Even a cheap polystyrene pattern is suitable for single or a couple of prototype pieces. Advanced manufacturing technologies like 3D scanning can be utilized in pattern making.



> Quality

The certified management systems ISO 9001, ISO 14001 and OHSAS 18001 are in use.

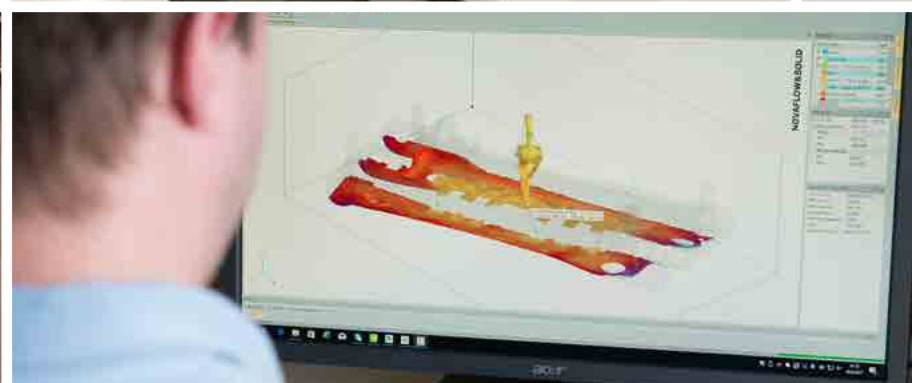
In addition to the traditional methods the dimensional inspection of the products can be made using 3D measuring based on the component's CAD data. Available non-destructive testing (NDT) methods are ultrasonic, penetrant and magnetic particle. Besides chemical analysis also the micro structure, hardness and physical properties can be tested.

> Components ready to assemble

Suomivalimo offers the castings also as machined and painted through the efficient subcontractor network. The supply chain can be tailored cost efficient and flexible to meet the customer's needs.

> Engineering cooperation

We have good engineering capabilities and are able to design the components together with the customer during a product development project or when considering to change steel fabrication to cast component.





Cast iron grades

Suomivalimo casts the most used cast iron grades of grey iron and nodular cast iron. In addition, solution strengthened SSF materials of the new generation as well as stronger and more wear resistant ADI materials are produced.



	Tensile strength Rm [N/mm ²] min.	0.2% proof stress Rp 0.2 [N/mm ²] min.	Elongation A [%] min.	Brinell hardness HBW	Modulus of elasticity E [kN/mm ²] (typical values)
Gray Cast Iron (EN 1561)					
EN-GJL-200	200	130...195 (Rp0.1)	0.8...0.3	~ 150 ... ~ 225	88...113
EN-GJL-250	250	165...228 (Rp0.1)	0.8...0.3	~ 175 ... ~ 255	103...118
EN-GJL-300	300	195...260 (Rp0.1)	0.8...0.3	~ 180 ... ~ 275	108...137
Spheroidal Graphite Cast Iron (EN 1563)					
EN-GJS-400-18LT	400	240	18	~ 130 ... ~ 175	169
EN-GJS-400-15	400	250	15	~ 135 ... ~ 180	169
EN-GJS-450-10	450	310	10	~ 160 ... ~ 210	169
EN-GJS-500-7	500	320	7	~ 170 ... ~ 230	169
EN-GJS-600-3	600	370	3	~ 190 ... ~ 270	174
EN-GJS-700-2	700	420	2	~ 225 ... ~ 305	176
EN-GJS-800-2	800	480	2	~ 245 ... ~ 335	176
Solution Strengthened Ferritic Spheroidal Graphite Cast Iron SSF (EN 1563)					
EN-GJS-500-14	500	400	14	~ 185 ... ~ 215	170
EN-GJS-600-10	600	470	10	~ 200 ... ~ 230	170
Ausferritic Spheroidal Graphite Cast Iron ADI (EN 1564)					
EN-GJS-800-8	800	500	8	~ 260 ... ~ 320	163...170
EN-GJS-1050-6	1050	700	6	~ 300 ... ~ 360	160...168
EN-GJS-1200-2	1200	850	2	~ 340 ... ~ 440	158...167
EN-GJS-1400-1	1400	1100	1	~ 380 ... ~ 480	156...165

* The given values relate to a separately cast test bar. Material density for all grades is ~ 7.0 ... ~ 7.3 g/cm³.

Contact us

Suomivalimo Oy

Sales and product development

Nujamiestentie 3 C
FI-00400 Helsinki
Finland
sales@suomivalimo.fi

Production and deliveries

Parkatintie 31
FI-74120 Iisalmi
Finland
orders@suomivalimo.fi

Tel. +358 44 700 4698
Fax. +358 17 812 854

Business ID: 2761442-4
www.suomivalimo.fi