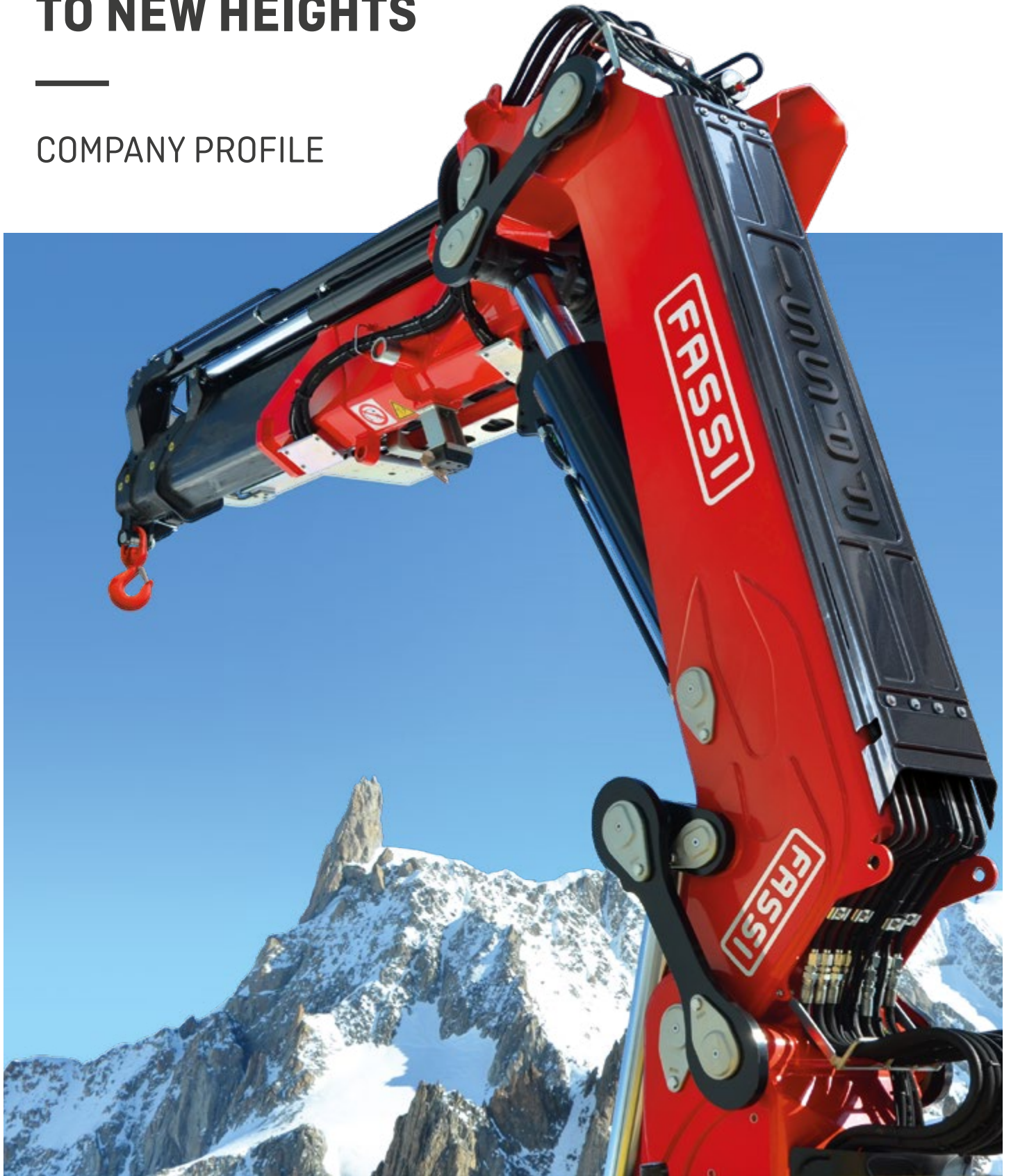


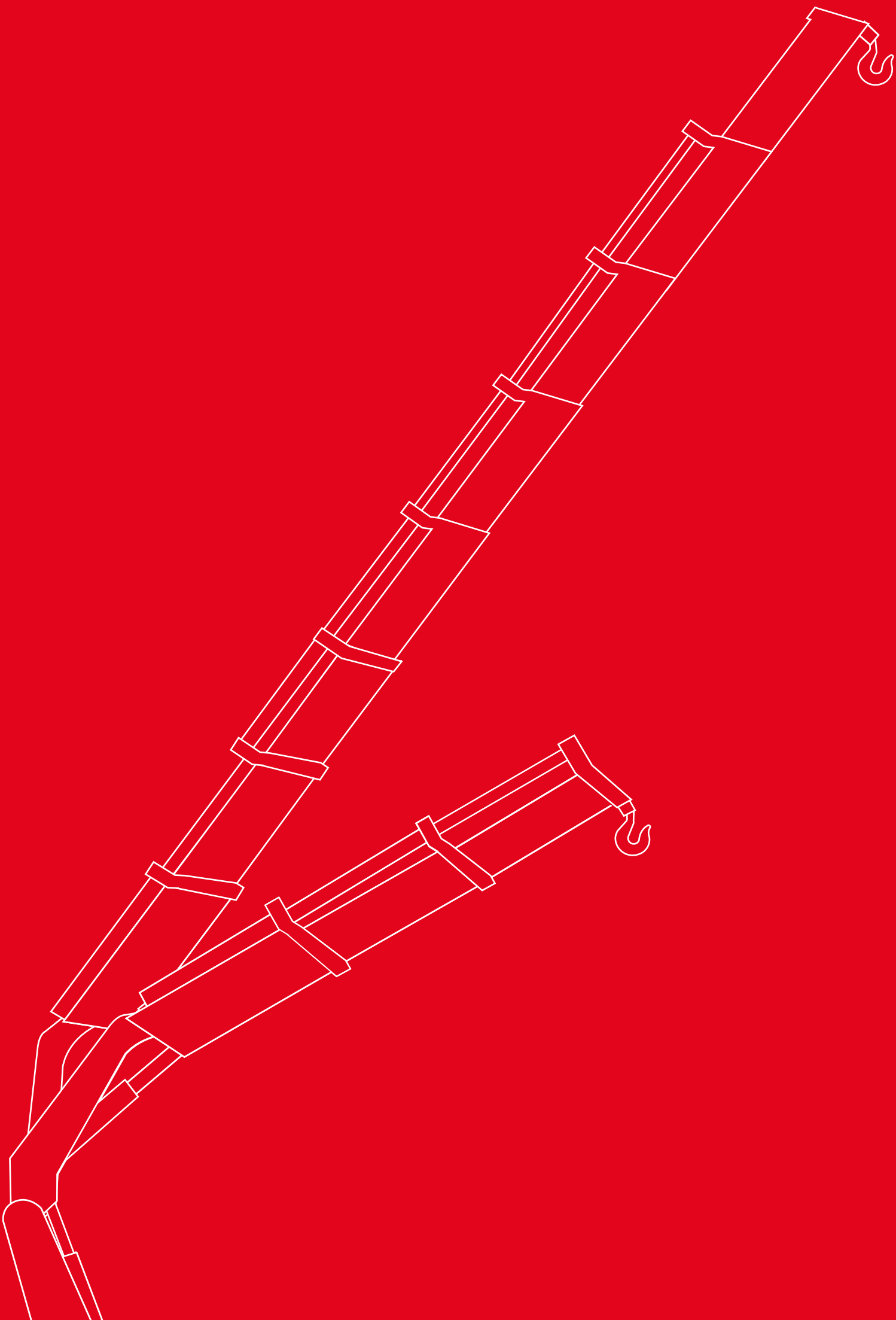


WE LIFT MADE-IN-ITALY QUALITY TO NEW HEIGHTS



COMPANY PROFILE





Wherever we are, whatever we are doing, we must always safeguard the principles of quality, excellence and innovation.

These are the distinctive traits of the Fassi spirit that characterise our activity in this sector that began over fifty years ago thanks to the foresight of my father Franco.



Giovanni Fassi
CEO FASSI GRU S.p.A.

A handwritten signature in black ink, appearing to be 'G. Fassi'.



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BEING THE FASSI GROUP TODAY

Fassi Group heads a network of leading commercial brands. From the Swedish Cranab and Vimek for the forestry sector, to the French Marrel, which fits out industrial vehicles for the recycling sector, to the Malaysian Fassi Pacific Asia, a manufacturer of single-boom cranes and the "Palm Oil" series, all the companies in the multinational group have technology, safety and innovation as cornerstones for their business. Together, they take advantage of the distributive strength of the network and confirm the Fassi Group's drive for internationalisation.

**OUR SPIRIT
OF ENTERPRISE
IS LIMITLESS**



> Fassi



> Marrel

FASSI GROUP

WORK BASED ON PASSION

The decision to acquire international brands is the consequence of the company's desire to diversify the products it offers the market, maintaining the high production standards promoted in Italy. Fassi Group guarantees 100% quality control for products offering unique levels of performance that are appreciated worldwide. The quality of the products is matched by a widespread and wide-ranging sales network that is

at the disposal of clients' needs, providing support and services based on punctuality and precision. An aspect that all the brands have in common is a strong passion for their work, and this serves as a driver for continuous improvement with a view to their true final goal, which is to fully satisfy their clients.



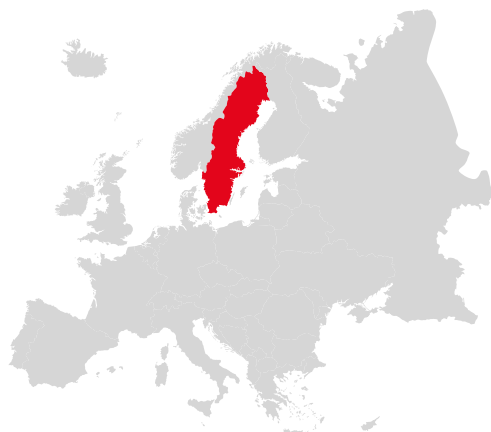
> Cranab



> Fassi Asia Pacific

THE CRANAB GROUP

In the North of Sweden, the Cranab Group produces the most modern technology for handling and logistics related to forestry activities. Founded in 1963, its headquarters are in Vindeln, in Västerbotten county, in the midst of the vast Swedish forests. Its location is the origin of the brand's specific vocation.



CRANAB



Cranab develops, manufactures and commercialises timber cranes and grapples for the handling of trunks. The company is located in Vindeln, in two modern and well-equipped plants, and constantly collaborates with the Swedish forest rangers, above all in the design and testing stages.



SLAGKRAFT



Slagkraft is specialised in the manufacturing of machinery for the cutting and maintenance of undergrowth, making an important contribution to road safety in forest areas. Experience and a drive for innovation have led the company to a leading position in the international market.



MARREL



Founded in 1919, the French company is a leading figure in the fitting-out of industrial vehicles for the recycling sector. Latest-generation machinery guarantees the highest levels of efficiency and precision throughout all of the stages of production, always guaranteeing standards of excellence. The Marrel workforce is highly qualified to offer the best possible service, including in the assembly stage.



AMPLIROLL MARREL

Invented by Marrel, the Ampliroll system consists of mobile hooks for the handling of demountable equipment. The product range, made up of three Ampliroll lines, allows containers of varying lengths to be loaded from the ground onto trailers, to then be transported.



SKIP LOADERS

The product range, which is subdivided into two main lines of skip loaders, includes versatile systems that are used for the loading and transportation of materials.



VIMEK



Founded at the end of the 20th century in Lidvågen, in the north of Sweden, Vimek has made its mark in the sector for its ability to listen to the needs of its clients and satisfy them with fast, simple and smart technology. It produces cutting-edge instrumentation for the collection and transportation of timber in tight spaces, even on sloping ground. The use of these machines favours the conditions for maintaining balance in the forest ecosystem.



FASSI ASIA PACIFIC

Located 50 km from Kuala Lumpur, Fassi Asia Pacific has a production area of 10,000 m², 6,500 of which are covered. It handles the production and assembly of single-boom cranes and the "Palm Oil" series. As well as producing models that respond to the needs of the Asian market, it offers after-sales service to clients in its area.







THE FIRST CRANE MARKED THE BEGINNING OF AN ERA

Fassi was founded in 1965, on the day that the first crane produced in the plant in Albino (BG) was unfurled. The event marked a turning point in the activities of the company, which made its market debut in 1946 with the trading of construction material and the sale and transportation of timber and coal. The change in direction was thanks to the courage of the founder, Franco Fassi, who had inherited the entrepreneurial spirit of the family and who had decided to focus on a sector that was still little explored at the time. His foresight and his trailblazing spirit benefited

the company, which in just three years produced and sold 150 cranes in Italy, France and Spain. Clients appreciated the technical specifications, the reliability and the continuous improvements made to render the cranes lighter.

The red colour of Fassi's cranes is recognised all over the world as a symbol of the passion that everyone in the company, first and foremost the family itself, puts into their work. In Fassi, everyone profoundly believes in what they do, contributing to the international importance of the company name.

HISTORY

A GOAL ACHIEVED IS ALWAYS FOLLOWED BY NEW CHALLENGES

The history of a great company is not only measured by the results it has obtained, but above all by the goals it still aims to reach. This is the path that Fassi continues to follow, a relentless search for the new and innovative. The Fassi family has never simply

enjoyed the satisfaction of its successes, but has always used them as motivation to continue to grow and develop other lifting machinery and systems because, as Enzo Ferrari said, the best car is the one that is yet to be built.

CERTIFICATION

QUALITY AND THE ENVIRONMENT ABOVE ALL

The expertise acquired over the years, the skills honed day after day, and the quality demonstrated in every step of production are the best evidence that Fassi is committed to doing its best both inside and outside the company. All of the companies in the Fassi Group adopt a single Integrated Quality and Environmental System in line with the ISO 9001:2015

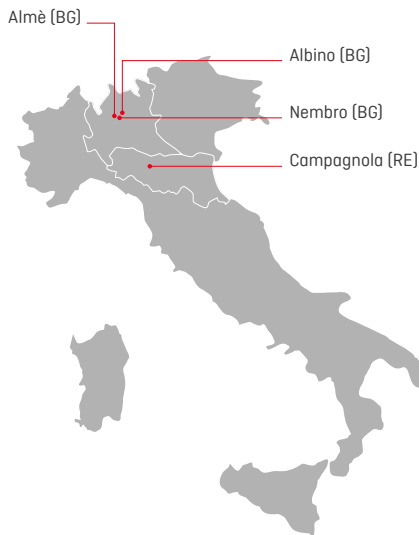
and ISO 14001:2015 regulations. For Fassi, being certified means receiving recognition of its efforts in designing and producing cranes that satisfy its clients' demands in terms of performance, reliability, safety, and reduced environmental impact, in compliance with regulations and legal requirements.



FASSI INDUSTRIAL GROUP

AN AREA DEDICATED TO EXCELLENCE

Spread between the Lombardy and Emilia Romagna Regions, the six companies in the Fassi Industrial Group create a manufacturing district of the utmost level. The group is characterised by a common aim to construct and commercialise top-quality cranes, managing every stage of the production chain internally and with respect for Made in Italy quality, of which the companies are representatives, from the raw materials to the finished product. The companies in the group cover an overall covered area of more than 97,000 m² and have a workforce of almost 600 employees.



CARPENTERIA CIESSE

Since 1989 - Campagnola (RE)

METALWORKING

Located just a short distance from the other companies in the district, Carpenteria Ciesse is set up for the production of structural parts and covers 80% of the overall demand for components.



O.M.B. S.r.l.

Since 2010 - Almè (BG)

MECHANICAL WORKS

As well as the production of components, this company also carries out precision works on cast parts.







O.CI.MA. S.r.l.

Since 1974 - Almè (BG)

RAM PRODUCTION

As well as producing components such as rams and racks, the company also carries out precision works on cast parts.

-  Cranes production
-  Components production and metalworking
-  Commercial sector
-  Oleodynamic components production and mechanical works



O.ME.FA. S.p.A.

Since 1979 - Albino (BG)

DESIGN ENGINEERING AND TESTING OF HEAVY-DUTY RANGE

O.ME.FA. is the acronym of Officina Meccanica Fassi (the Fassi Mechanical Workshop), the company that produces Fassi cranes with medium and high lifting capacities.



CARMO S.r.l.

Since 1975 - Nembro (BG)

MEDIUM- AND LIGHT-DUTY RANGE

This company produces Fassi cranes with medium and light lifting capacities. Works are under way on a 17,000 m² extension to the production area dedicated to components and metalworking.



FASSI GRU S.p.A.

Since 1965 - Albino (BG)

COMMERCIAL SECTOR

The company manages the distribution of the products, carries out market research and handles after-sales service. Since 1962, the company Fassi has been a member of A.N.F.I.A. (the Italian Association of the Automotive Industry). Fassi Gru is a registered trademark.




FASSI ASIA PACIFIC

Since 2013 - Malaysia

SINGLE-BOOM CRANES AND THE "PALM OIL" SERIES CRANES

Since 2013, this company has been responsible for the production and assembly of single-boom cranes and the "Palm Oil" series cranes, to widen the range, above all with models for Asian markets.



WE LOOK TO THE FUTURE FROM A DIFFERENT POINT OF VIEW

Innovation and the territory are the values that in 2007 led Fassi Gru, together with other important business entities, to set up Intellimech. Intellimech is a consortium that promotes R&D projects and inter-disciplinary experimentation, offers consultancy services for project management, and assists companies in taking advantage of opportunities resulting from technological innovation. Fassi Gru is also business and industrial partner to e-Novia, the "Enterprises Factory", which promotes, sets up and develops innovative companies through the valorisation of intellectual property created in collaboration with the most important Italian research institutions and international corporations.

RESEARCH

WE LEAD THE MARKET ON ALL FRONTS

In an ever-more globalised and demanding market, it is essential to identify values that can set a company apart from its competitors. The value that best represents Fassi is innovation, as the search for new systems and technology characterises the company's entire production chain, from design to production to the final product. The aim is to create added value for each product manufactured in the Fassi plants, from mechanical

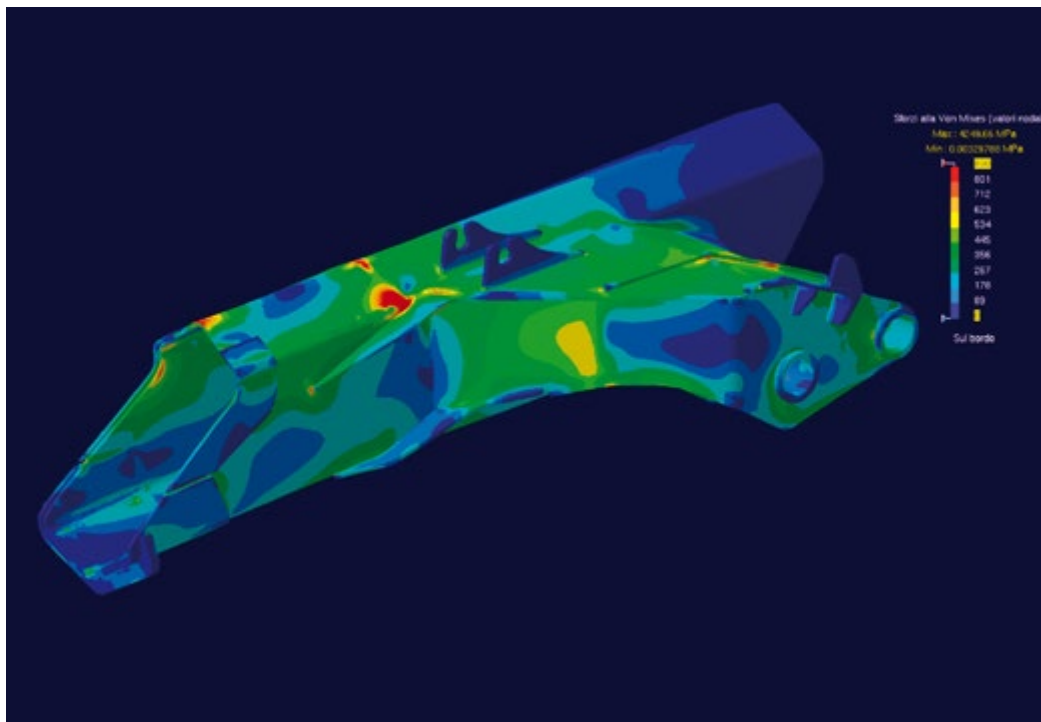
solutions to hydraulic functions, and proprietary and highly innovative electronic systems. At times stimulated by ideas from clients, at times driven by an internally developed idea, the staff in Research & Development work in an innovative manner based on a "can-do" spirit, proposing upgrades for existing systems, such as the first loader crane in the world with a lifting capacity of more than 150 tm.

DESIGN

A FOCUS ON INNOVATION IS OUR WATCHWORD

As well as innovative mechanical solutions, hydraulic devices and electronic systems, Fassi has also invested in analysing component yield strength, with the assessment of dynamic-structural performance for finished elements, and in calculation programmes, which as far back as 1989 have allowed for the designing of knuckle-boom cranes in 3D, integrating and combining ideas, development, simulation and structural analysis in a single instrument.

By taking advantage of electronics and both high- and ultra-high-strength steels, over the years the design of the cranes has led to an improvement in the overall performance and safety of the machines. For example, Fassi was one of the first companies to fit its cranes with a human-machine interface that allows the operator to control them remotely, with a wider view of the area and from a position that reduces the risk of injury.







“ Over the years, design has improved the performance of the cranes...

PROTOTYPING

IDEAS TAKE THE RIGHT SHAPE

As well as the precision of computerised design, kinematic analysis and structural analysis, all ideas and results are compared and verified with real, physical prototypes. Created to collaborate with the technical department, the experimental department develops three types of prototype for each new model.



Fatigue

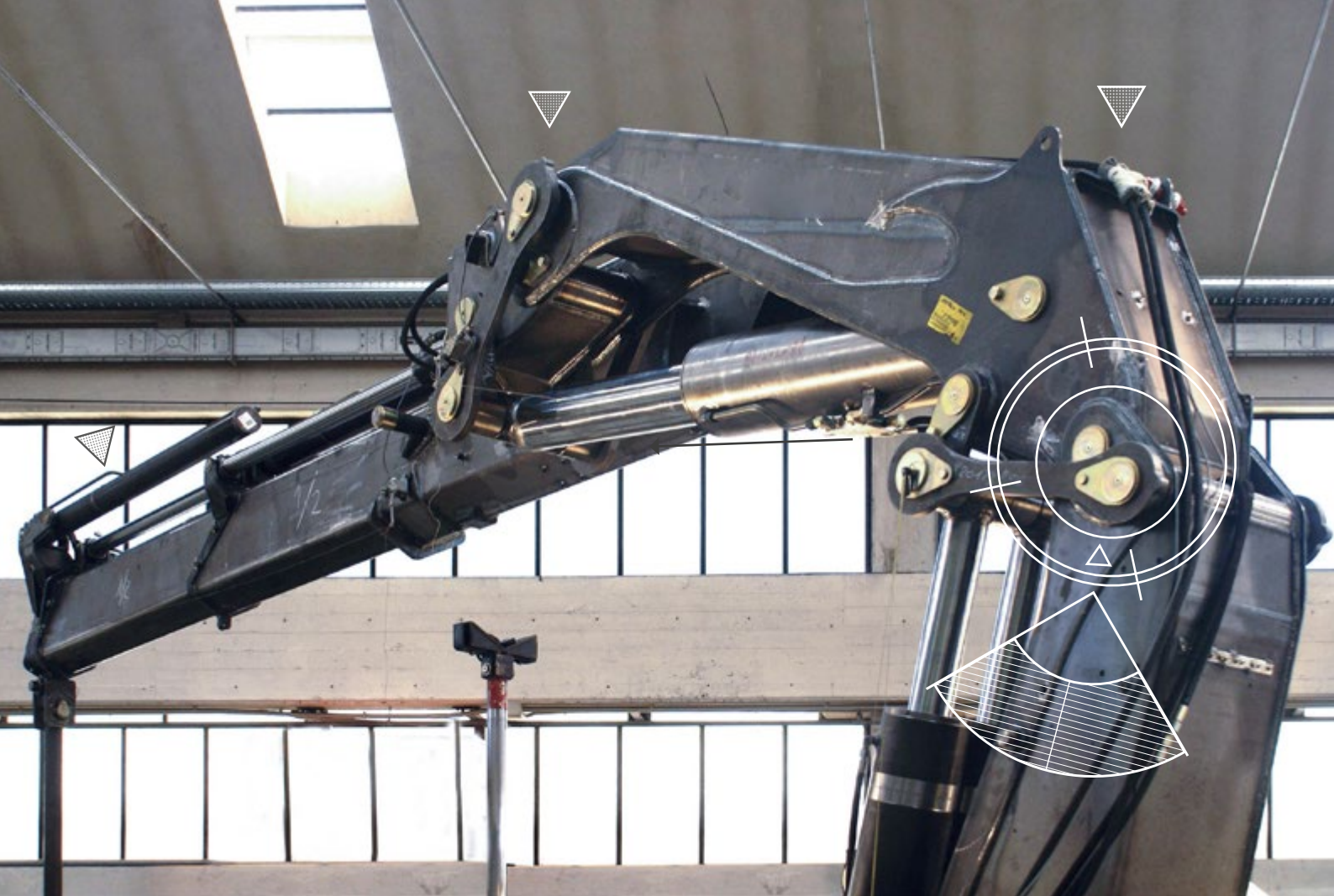
The first prototype is destined for strenuous fatigue tests.

Performance

The second prototype is dedicated to preparation and to the testing of functions and performance.

Manufacturing readiness

The third prototype is developed in order to prepare the product for manufacture.



TESTING

WE PUT OURSELVES TO THE TEST

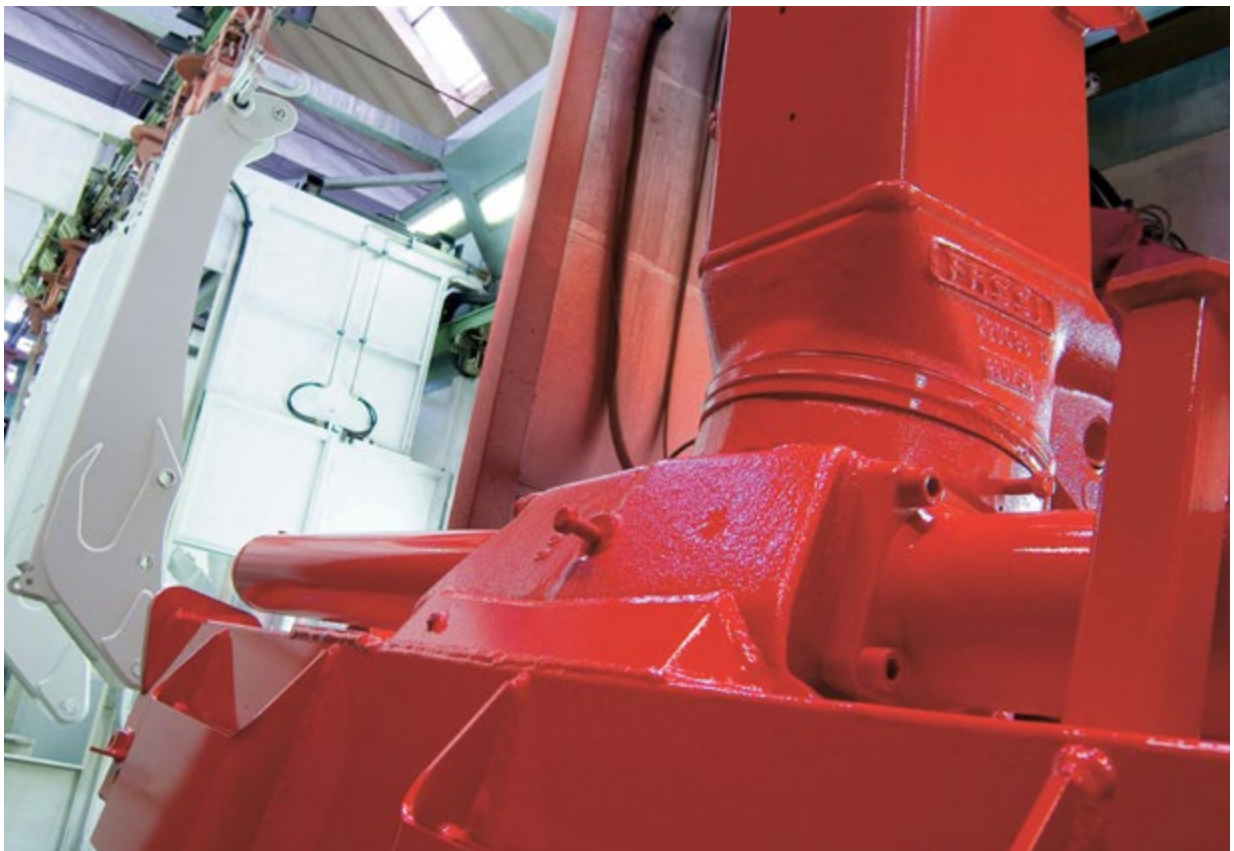
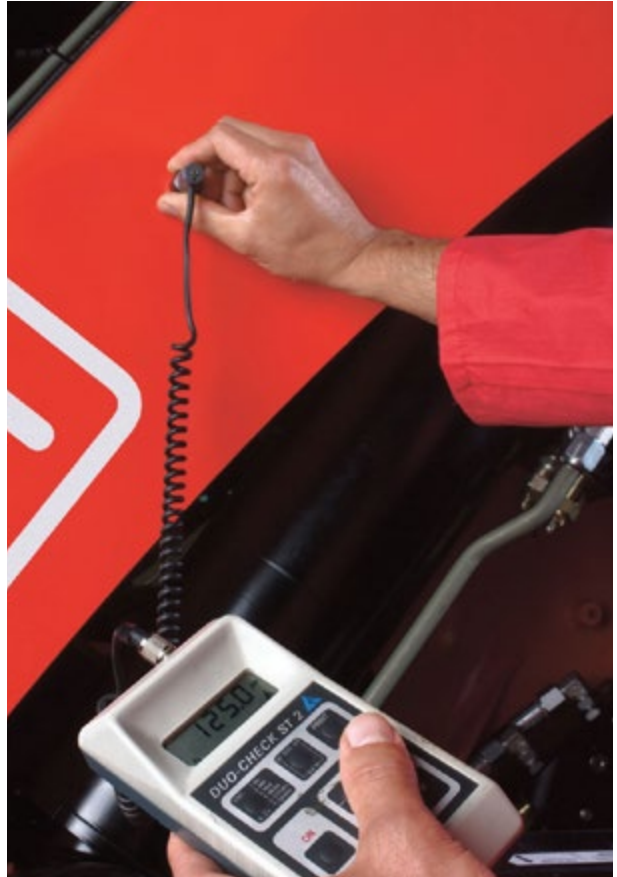
Every crane model undergoes three tests: fatigue, lifting and constructive tests. In particular, Fassi is famous in the sector for how early it began carrying out fatigue tests, an activity that the company began in 1980. Over the last 40 years, an impressive amount of data has been accumulated, which has allowed the company to identify the right parameters for the carrying out of tests.

With an instrumented prototype crane fitted to a dedicated bench and run continuously, checks are made on the correctness of the design through a minimum of 200,000 fatigue cycles.

During the fatigue tests, the exact conditions that the crane will have to operate in are simulated. In particular, the trials provided for in fatigue testing allow screening of all the main structural and

dynamic elements in the prototype crane, with particular reference to the resistance of the steel and to the critical points where elevated levels of stress may lead to cracks and problems over the long term. The designers analyse the data collected in order to check that it complies with the design characteristics. The simulation is dynamic, as it needs to mirror as much as possible actual working conditions that are in line with loading curve statistics.

In lifting tests, the crane is fitted to the bench and subjected to trials involving the vertical lifting of loads, necessary for the documentation regarding the declaration of capacity, while construction tests make sure that everything is perfect in order to prepare the product for manufacture.





“ The quality of the painting process adopted by Fassi is aimed at ensuring excellent results over time...



WE AIM EVER HIGHER



MANUFACTURING TECHNOLOGY

PERFORMANCE OF THE HIGHEST LEVELS

In line with its natural flair for innovation, Fassi has invested significant resources in the automation of manufacturing processes. This has allowed the company to obtain the precision, continuity, repetitiveness, conformity and guaranteed results that can only be achieved through automation. The use of robots allows the manufacturing cycle to be more efficient while maintaining very competitive prices. Automation also means making the most of the employees who, thanks to this policy, are assigned

to the many activities in which the human element makes a difference.

Over the years, Fassi has adopted new welding systems and an automated warehouse, laser cutting, robotic systems for the welding of extension booms, a welding system for hexagonal chassis beams equipped with automated warehousing, and lastly welding systems for supplementary outriggers.

QUALITY, MANUFACTURING TESTS AND CONFORMITY

WE REACH THE HEIGHTS OF PERFECTION

With cutting-edge machinery and the widest range of tests executed on prototypes and the entire production range, the internal laboratory carries out both invasive and non-invasive tests on materials, casts and welds. The Fassi quality system provides for a series of interventions that follow the construction of every single crane, beginning with the raw materials, which are checked directly on the supplier's premises and on arrival at the various Fassi plants.

The system then provides for a coordinated series of steps that verify every moment of the construction and

assembly of the crane. Every single step is certified by the department manager, who in turn has to constantly report to a supervisor. The system calls for appropriate coordination between the skill of the workers and the use of computer technology that collects, sorts and provides real-time data from the system.

When a crane arrives in the warehouse for shipping to the client, it has been subjected to hundreds of technical and functional checks that culminate in the final test.



RANGE, MODELS, VERSIONS AND VARIANTS

WE MEET ALL POSSIBLE EXPECTATIONS

Fassi holds a world record: that of the widest range of models of cranes available for the international market. With Made in Italy quality and extremely high, certain and long-lasting standards of safety and performance in common, the 75 models of Fassi cranes have a lifting capacity range of between 1 tm to 150 tm. On the basis of this parameter, the cranes are divided into three main ranges: the

light-duty range from 1 tm (Micro) to 12 tm (F120B), the medium-duty range from 13 tm (F135A) to 34 tm (F365A), and the heavy-duty range from 37 tm (F385A) to 150 tm (F2150RA). There are also 6 special series (AS, SE, T, Marine, Defence and Railway). The models are available in more than 500 versions, which in turn can have 30,000 different configurations.



Light-duty cranes

From 1 tm (Micro) to 12 tm (F120B)

Uniting reduced weight and compact dimensions in a concentration of strength.



Medium-duty cranes

From 13 tm (F135A) to 34 tm (F365A)

Suitable for fitting to 2- and 3-axle trucks offering potentially infinite fitting possibilities.



Heavy-duty cranes

Over 39 tm

Suitable for fitting to 3- or 4-axle trucks, these cranes combine exception lifting performance with a body that limits overall dimensions as much as possible.

Special cranes

AS: designed for the handling and delivery of pre-packed materials, above all in the sectors of logistics and sale of construction materials.

SE: offering technological solutions to construction companies that deal with the implementation/sale of prefabricated drywalls.

T SERIES: designed for fitting to emergency vehicles and vehicle-removal units that require the ability to lift vehicles.

MARINE SERIES: thanks to the special construction of the base, and the protection against salinity, these cranes can be fitted to all kinds of boat.

DEFENCE SERIES: developed in partnership with the military of various countries, these are suitable for integration with army vehicles and equipment.

RAILWAY SERIES: designed to be fitted to railway carriages for track maintenance.





TECHNO CHIPS

A CONCENTRATE OF TECHNOLOGY

Fassi applies a range of innovative mechanical, hydraulic and electronic technologies to its cranes, the so-called “Techno Chips”. Each chip identifies the extra technology it represents and is used in all Fassi documentation. Thanks to the presence of electronic

control units, it is possible to control specific operational functions, or improve the functioning of the crane, influencing the hydraulic performance of the distributor and increasing safety controls.

IMC Integral Machine Control control	ADC Automatic Dynamic Control control	S800 Multifunction Distributor Bank control	S900 Multifunction Distributor Bank control	D850 Digital Multifunction Distributor Bank control	D900 Digital Multifunction Distributor Bank control
RCH/RCS Radio Remote Control control	FX500 Fassi Electronic Control control	LLV Load Limiting Verification control	GV Graphic Visualizer control	ME Manual Extension control	GAS Grabe Automatic Shake control
FSC/S Fassi Stability Control / Super control	FSC/H Fassi Stability Control / High control	FSC/M Fassi Stability Control / Medium control	FSC/L Fassi Stability Control / Low control	ICC Integral Counterweight Control control	MOL Manual Outriggers Lock control
CPM Crane Position Monitoring control	OTC Oil Temperature Control control	FS Flow Sharing performance	XF Extra Fast performance	MPES Multi Power Extension System performance	XP Extra Power performance
FL Full Lift performance	JDP Jib Dual Power performance	PROLINK Progressive Link performance	OET Outriggers Easy Tilttable performance	OHT Outriggers Hydraulic Tilttable performance	UHSS Ultra High Strength Steel strength
FWD Fewer Welds Design strength	CQ Cast Quality strength	RPS Rack and Pinion System strength	FX900 Fassi Electronic Control control	FSC/SII Fassi Stability Control / Super II control	v7S Color Display Radio Remote Control control
v7H Color Display Radio Remote Control control	GAS Grabe Automatic Shake control	IoC Internet of Cranes service	CCD Cabin Collision Detection control	FX901 Touch Screen Display control	AWC Automatic Winch Control control
LMS Load Monitoring System control	V7RRC Radio Remote Control control	FX-Link Integrated crane-truck connectivity control	ACF Automatic Crane Folding control	FIP2.0 Fassi Installation Program service	FX200 Fassi Electronic Control control
HO Hydraulic Overload Limiter control	HY Hydrocontrol Distributor Bank control	ISD Immediate Stopping Device control	S200 Analogic Multifunction Distributor Bank control	WL Walvoil Distributor Bank control	

SECTORS

WE HAVE CHOSEN TO BE VERSATILE

The cornerstone of Fassi production is versatility, a factor that over time has allowed the company to conquer new markets and make its way not only in traditional sectors suited for crane use, but also in those considered as extreme, and which require special technology.

LOGISTIC



RAIL



DRILLING & MINING



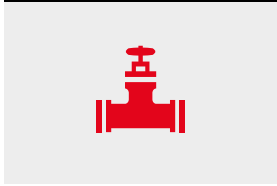
MILITARY



MARINE



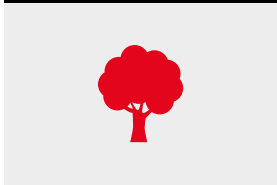
OIL & GAS



RECOVERY



GREEN



ENERGY



CONSTRUCTION





OUR SERVICES AIM HIGH



SALES NETWORK

AN INTERNATIONAL NETWORK OF KNOWLEDGE

Oriented towards internationalisation since the end of the 1960s, when exports were already common to France and Hong Kong, Fassi has always believed in the opportunity to extend the sale of products and the provision of services ever further and in an increasingly widespread manner. To this end, it has set up a network of dealerships that, with presences in approximately 60 countries, provides extensive global coverage.

Fassi sells throughout Europe via a network of dealerships. Some of these are direct branches, which in turn have a network of outlets and authorised workshops. These include Fassi UK, Fassi Ladekrane, Fassi BE, Fassi Sverige and Fassi Portugal.

As well as having consolidated practical experience and a solid professional background, those working

in the sale of industrial vehicles need to be capable of balancing the typical traits of craftsmanship with high-tech knowledge. Fitting a hydraulic crane to a truck means bringing together two highly industrialised technological products, creating the conditions to allow not only a functional and safe dialogue between the two components, but one which is also effective in exalting their reciprocal potential.

The work of a skilled fitter can be seen in the way they fit a crane, ensuring efficiency and the utmost safety on a vehicle that travels and transports goods, at the same time guaranteeing operational reliability, even in the most extreme conditions. The prime objective of a fitter is therefore to make sure that the structural and dynamic stress from the crane is correctly transferred to the chassis of the truck, without influencing the driving performance of the vehicle.

EUROPEAN SALES NETWORK



INTERNATIONAL SALES NETWORK IN OVER 60 COUNTRIES









SPARE PARTS

WE GET EVERY PART TO THE RIGHT PLACE IN RECORD TIME

In order to respond to the constant increase in orders, Fassi has set up an innovative, highly technological and centralised logistic centre. Every day, spare parts leave here to reach the countries where they are needed, guaranteeing delivery within 48 hours from the placing of the order. Furthermore, via a futuristic Warehouse Management System, clients can connect to the software platform, check the availability of spare parts and place orders for

the necessary quantities 24 hours a day, seven days a week.

The quality of the spare parts and the wide range in the catalogue ensure a long life for the cranes: more than 70% of the cranes made by Fassi are still operative, and over the years to come will require no more than spare parts and maintenance to keep them performing as they should.



SPARE PARTS AND SHIPPING

WE ARE WITH YOU WHEREVER YOU ARE AND WHENEVER YOU NEED



25

People employed
in the department



1,500

Orders per month



1,600

Parts per day

TRAINING FOR THE DISTRIBUTION NETWORK

WE STAY UP TO DATE WITH THE FASSI ACADEMY

Fassi cranes represent the utmost in technology for the sector. In order to allow its partners and their collaborators to better understand the innovation that these machines represent, and to allow full knowledge of the products, all the necessary means are provided, together with dedicated training courses. These courses can be organised both within the company itself or in the training room of a dealership anywhere in the world, because the Fassi Academy is not so much a physical place as a continuously developing source of knowledge.

The technological systems that the cranes are comprised of are continuously upgraded and require periodical courses that demonstrate how to make

the most of their potential. The Fassi Academy offers commercial courses and opportunities for training that express the meaning of evolution in the crane sector and the factors that characterise Fassi technology with regards to hydraulics, electronics, control and safety, as well as practical seminars on technical and operational matters and the use of Fassi software. This range of courses is accompanied by other opportunities such as specialised workshops on new technological solutions, or focused studies of mechanical components and how to intervene in a practical manner in the stages of fitting and support. Lastly, refresher courses are offered for Fassi partner technicians, who in turn train the end users.

WARRANTY

OURS IS MORE THAN JUST A WARRANTY

Quality is the cornerstone on which all of Fassi's production is based. This is why every single product is designed to last over time while offering top-level performance. In the event of problems, each new product has a warranty that, for the relative period of coverage, provides the client with access to the full professionalism of Fassi support.

FASSI	
WARRANTY CERTIFICATE / CERTIFICATO DI GARANZIA	
Issued to the Company / Rilasciato alla Ditta	

On / Il _____	
FASSI crane type / Tipo gru FASSI tipo	Serial number / Numero
_____	_____
Crab application / Utilizzo con brucia	_____
Mounted on truck type / Monta su autoveicolo tipo	_____
Chassis number / Telaio N°	Plate / Targa
_____	_____
Sold by / Venduto effettuato da	_____
Installation made by / Montaggio eseguito da	_____
Delivered by / Conseguo effettuato da	_____
At time of delivery the following was effected: Allato della consegna è stata effettuata:	
Test of working and lifting capacities of the crane / Prova di funzionamento e prestazioni della gru	_____
Practical demonstration of the use of the crane / Dimostrazione pratica dell'uso della gru	_____
Delivery of the use and maintenance manual / Conseguo libretto uso e manutenzione	_____
Delivery of load and warning charts / Conseguo targa prestazioni e avvertimento	_____
Delivered by / Conseguo da	Received and signed by / Ritiro e firma per accettazione
_____	_____
FASSI	









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