



APPLICATION FIELDS & PRODUCTION RANGE




Institutional Catalogue 2013

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"There are companies for which the work means pursuing a dream ... building the future" 



APPLICATION FIELDS & PRODUCTION RANGE

From Italy to international market
Application fields
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Miscellaneous

FROM ITALY TO INTERNATIONAL MARKET



Floriano Bussetti, Ceo

Graziano Bussetti, President

About us

SAMMI S.r.l. located in Narni Scalo (Italy), approximately 80 km north of Rome and 200 km south of Florence, was founded in 1976. After the first experience in the mechanical assemblies and in the maintenance of the plants, SAMMI S.r.l. implements the areas to undertake the structural constructions and starting a growth process not only in terms of the Company size but even in the managerial and technical skills.

Some key steps in this direction are the transformation in Joint Stock Company in 1993, the acquisition of MOLLICONI METMO S.p.A. in 1999 and related know-how in design, production and marketing of equipment and plant for the bulk material handling, assuming a leadership position on the same field.

The development of the managerial and technical skills are strengthened even more with the opening of new subsidiary PLANIA INGEGNERIA (Architecture, Engineering, Planning).

Mr. Graziano Bussetti from founder of the

Company, has direct himself to the managerial and organizational aspects of the Company, to become the President.

Fascinated by the entrepreneurial skills of the father and the cohesion and synergy of the group, Mr. Floriano Bussetti decided to join the family business becoming the CEO (Chief Executive Officer) and deciding to embrace the philosophy of Sammi "no barriers exist only new challenges" and bringing the brand SAMMI to become one of the most important on the International Market. Making Plants and Machineries for the bulk handling industry, from designing to material selection, from manufacturing/implementation to maintenance and after-sales technical assistance, Sammi directly control the entire business cycle and it is strongly oriented towards product development and design, granting products and services that are able to combine the quality with the product customization.



Headquarter, administrative office and main workshop located in Via Tuderte, 388 - 05035 Narni Scalo (Terni) – ITALY.



Engineering

With over 35 years of experience, Sammi has always been associated with vast experience and flexibility in customized solutions and with undisputed expertise in technologies gained in part through close cooperation with its industrial partner. Sammi's Engineering Department, boasting engineers and technicians specialized in mechanical, structural and civil engineering, covers every step of each project, from design to construction and assembly of the structural frames and of the machines for single conveyor or for turnkey plants all over the world.

Application fields

Specialized in design and manufacturing of machines for bulk material handling, Sammi provides complete systems in different fields, such as:

- Mine and Quarry plants
- Cement factories
- Off-shore plants
- Harbour plants
- Glassware factories

- Steelworks/Aluminium Smelters
- Tunnel plants
- Agro food industries
- Chemical/Fertilizers

Systems

Conveying systems, Crushing and screening plant, Storage, transport, bagging and palletisation plants, Kilns feeding and extraction systems, Premixed Plant, Silos feeding and extraction systems, Dosing, mixing and weighing plant, Ship loading and unloading plant, Conveyors plants for urban solid waste (U.S.W.).

Equipment

Sammi provides the following equipment:

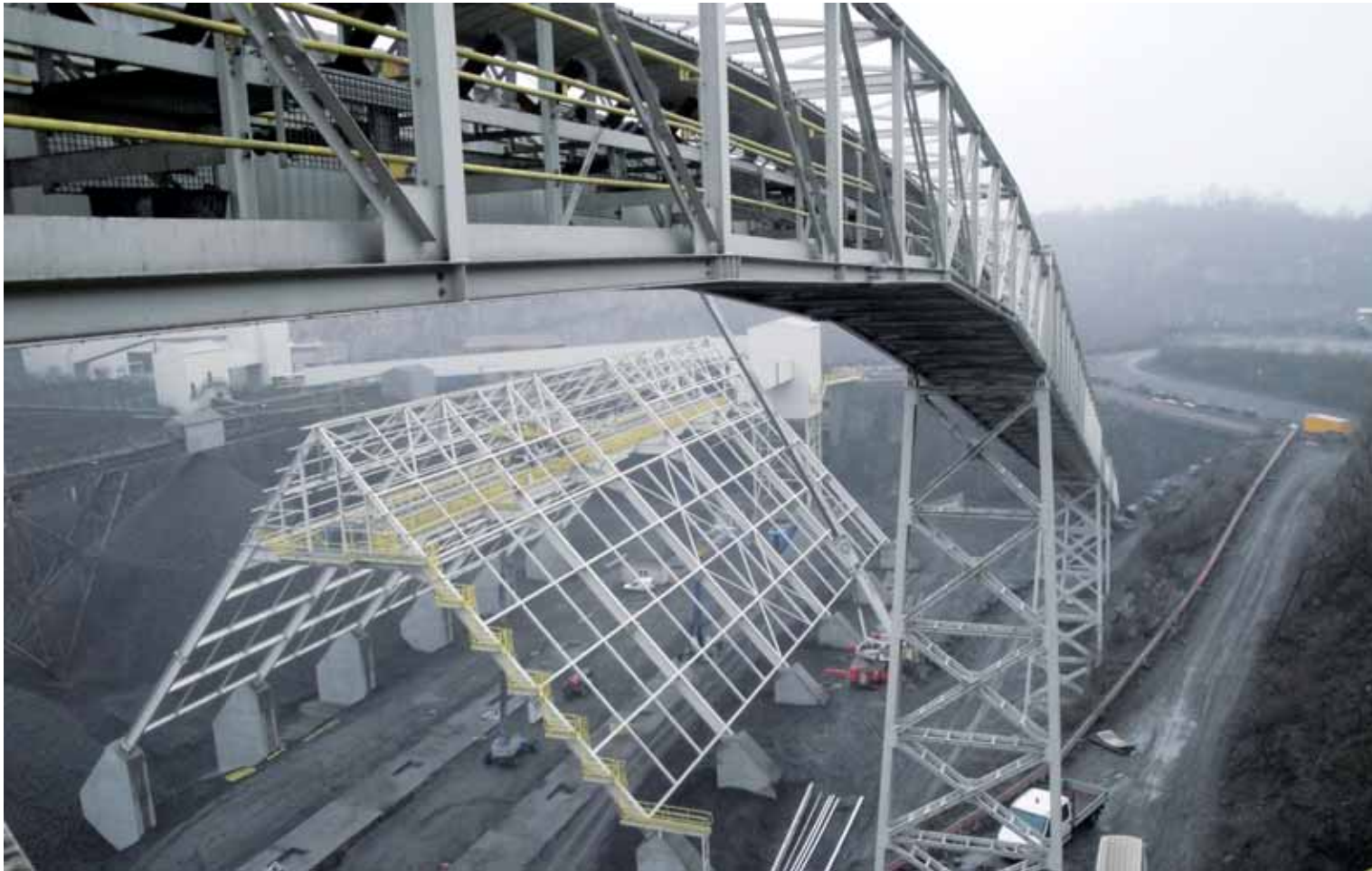
- Belt conveyors
- Bucket elevators
- Belt feeders
- Step angle conveyors
- Spillage belt conveyors
- Dust-tight conveyors
- Gallery bridge conveyors
- River crossing bridge conveyor
- Tunnel conveyors

- Chain conveyors
- Chain extractors
- Redler conveyors
- Rolling shutters extractors
- Mechanical rotary extractors
- Driven bends with tapered rollers
- Tripper conveyors
- Ship loaders
- Mobile harbour machines
- Lime slaking equipment
- Special machines
- Special mechanical structures

Accessories

- Telescopic unloaders
- Rotary feeders
- Slide and rod gates
- Spill chains
- Diverter gates
- Material diverters
- Double pendulum valves
- Belt cleaners
- Screw conveyors
- Storage Silos
- Hoppers
- Structural frames

APPLICATION FIELDS



Mine and quarry plants

Gaurain (Belgium) - Transport, Storage and Reclaim of Limestone

Design, supply, installation and commissioning of two transportation lines completed of hoppers, conveyors, angle-towers, to convey the limestone from the quarry to the new covered storage area with capacity of 50.000 cu.mt and dimensions of 48 m width, 90 m length and 30 m height. The limestone is unloaded and uniformly distributed inside the stockpile by a tripper car of capacity 2.500 tons per hour.





Cement factories

Couvrot (France) - Reception, processing and transportation of pet-coke to power cement mill.

Design, procurement, construction, surface treatment, transportation, erection, testing and start-up assistance for a transportation system consisting of several machines and carpentries intended for the reception, processing and transportation of pet-coke to power cement mill. In particular, the machines are appropriate to be installed in ambient ATEX 22 dust.



Steel works

Volkij (Russia) - Raw material handling

Design, supply, erection and commissioning of transportation lines including tripper car for storage of minerals in the Volkij Steel Plant. All the materials used and all the structures are designed and suitable for the low environmental temperature of the region.





Off-shore plants

Indonesia: Complete transshipment plant

The ship is equipped by two cranes of 30 ton each one that feed two hoppers. The product is extracted from each hopper through an extractor belt made in rubber and then is carried to a unique transversal belt that, on its top, has a by-pass that unloads the material on two longitudinal belts that feed a shiploader. The system is realized in order to load vessels up to 2000 t/h of coal. All the mechanical elements of the transport system were built in Italy and then sent to the site where they became active with the help of Sammi supervisors. In addition to the mechanical equipment, Sammi supplied also the electrical and oil hydraulics part.





Harbour plants

Trieste (Italy) - Ships loading system

Belt conveyor system for clinker transportation with tripper and telescopic ship-loader: Width: 800 mm, Length: 72 m, Capacity: 300 t/h



Glassware factories

Austria: Scrap-Glass handling

Design, manufacturing and installation in a glass production plant of the scrap-glass transportation system by means of belt conveyors.





Waste/Power/Biomass Plants

Italy-Biomass Plant

Design, manufacturing, surface treatment, transport, erection and commissioning of: support structure for silo board kiln, batching plant biomass, distribution in the kiln, piping distribution of wood dust from the system dosage to new lances of the kiln, modification of the top part of the kiln for inserting new lances.



Tunnel Plants

Pontremoli (Italy) – Muck removal conveyor system for tunnelling application

Conveyor belts for muck removal in the tunnel of the "gas pipeline" on Mount Cucchero excavated by TBM full face LOVAT RMP167SE. The belt conveyor is length 1200 meters.



Agro-Food Industries

Ravenna (Italy) - Port Terminal Warehouse Mechanization

Execution of mechanical works, from the assembly project, aimed at extending the lifting system, to the transport of material coming from the wharf by conveyor belt in the form of bulk cereals to be stored inside the existent warehouse at the port terminal. In particular it has been supplied a bucket elevator with capacity of 600 t/h at height of 36.5 m. Sammi plant and equipment can guarantee rapidity and quality minimizing raw material losses. All equipment are suitable for installation in Atex 22 dust environments.



MACHINES AND EQUIPMENT

Belt conveyors

SAMMI design and manufactures belt conveyor systems according to any Client specifications and needs.



Drive drum



Step angle conveyors



Discharge head



Pneumatically-operated diverter gates



Spillage belt conveyors



Counterweight snub pulleys



Spill chains



Dust-tight belt conveyors are used to transport light and fluffy materials that can be wind swept, like for the following application: transportation of COAL-DUST or ALUMINA from the harbour to a yard in Sardinia, Italy, has been realized by means of a belt conveyor 765 m long, with 500 tons/hr capacity. Due to high material volatility and spot windiness, the belt conveyor was included in a modular cylindrical tunnel, 2.50 m diameter, supported by piles located at 40/48 m distance.



Gallery bridge belt conveyors
Sammi's gallery structure is made in steel profiles allowing a span of more than 50 m. The gallery supports belt conveyor structure and walkways.



Road and River crossing belt conveyors
In the picture is shown a river crossing belt conveyor concave and convex inserted in a bridge with length of 99 meters with 3 spans of 33 meters length each one.



Tunnel conveyors
Used for transportation of the materials from inside the tunnel to outside.



Bucket elevators are used to lift bulk material from one height to another. Bucket elevator operates by using an endless belt or chain that revolves between a top and bottom pulley and the buckets move with it. At the bottom the buckets pick up product feed into the elevator boot and at the top the product is discharged as the bucket turns downward over the head pulley. In the picture is shown a bucket elevator with capacity of 600 tons per hour and height of 36.5 meters. The conveyed material is cereal with specific weight of 0,75 t/m³.



Feeders

Used for extracting bulk material from hoppers or silos. In the upper picture is shown a feeder with capacity of 370 tph for mix of gypsum, clinker and additives, while in the lower picture is shown a feeder with capacity of 750 tph of sulphur, ready for functional test in Sammi workshop.



Hoppers

In the upper picture is shown a storage hopper with capacity of 110 tons for pet coke material with an intermediate independent volume equipped of electric vibrators to facilitate the unloading of the material. In the upper side, the hopper is equipped with dedusting system. In the lower picture are shown two hoppers with loading mouth dimensions of 8 x 7 m and discharging mouth dimensions of 2.3 x 0.9 m.





Tripper

Belt tripper is used to “trip” the material of the conveyor at locations between the terminal pulleys. As the belt passes over the upper pulley, the material is discharged from the belt into a collection chute. The material is then diverted to one side or both sides of the belt for discharge, or back onto the belt if the desired discharge position is at the end of the conveyor. In the pictures is shown a tripper car for 2500 tph of limestone.



Open/covered storage configurations

Sammi supplies complete stockyard equipment and systems for most bulk materials. Equipment and systems range from the smallest semi-automated systems to the largest fully automated systems including open storage and closed or covered storage configurations.



Special mechanical structures

Sammi can count on a covered surface of 4.000 sq mt workshop divided into production sectors, each of one provided with overhead crane, and 15.000 sq mt of external ground. The workshop is mainly dedicated to the activities of pre-assembly of the equipment, so that it is provided with relevant equipment such as various type of welding machines (electrode, submerged arc, MAG, TIG; etc..), calendering machine, machine press for stamping, punching machine, lathe machine, etc. Sammi premises include also 600 sq mt of painting shop with its own shot-blasting cabin, including weighing deck for incoming/outgoing trucks.





Bulk material mixing or blending systems

In the pictures is shown a Storage and Premixed Plant realized by Sammi in Italy.



Mobile harbour machine for ships loading

Mobile ship loading system equipped with belt conveyor able to receive the material by the upstream system and then to unload it in the holds of the ships by means of longitudinal mobile chute. The conveyor frame is mounted on a trolley equipped with four casters to allow towing both longitudinally and transversely. Functional machine for multiple applications Robust designs withstand demanding work Custom engineered to accommodate job site.

Trolley unloaded machine

Mobile ship loading able to move on two guide rails placed on the ship in order to be placed above the holds of the ship that have to be loaded.



Ship loaders

Automatic ship loaders for salt and coal, installed on a 25,000 t Italian ship. The ship loader is long 36 meters with capacity of 1200 tons per hour and it is able to rotate around its own axis and tilt between $+17^\circ$ and -5° .



Loading spout with luffing and traverse function either electronic and hydraulic driven, suitable to load OGV vessels up to Capacity of 2500 tph.



The **Special Shiploader** in the picture above is designed for a load of 750 t/h of sulphur, but can transport coal and iron ore in different specified weights, using the extractor inverters. With this configuration the unit can take material with the barge crane and load it in its hold or transfer the load directly on the OGV.

- Luffing Angle (max): $+50^\circ$, for berthing operation or to by-pass mast or other vessel's facilities (crane) during change-hold operations.
- Slewing Angle: $+270^\circ$, around its own axis.
- Extractable shuttle/discharge: up to 30 m.



The plant and its components are suitable to operate in dangerous conditions according to Atex classification.

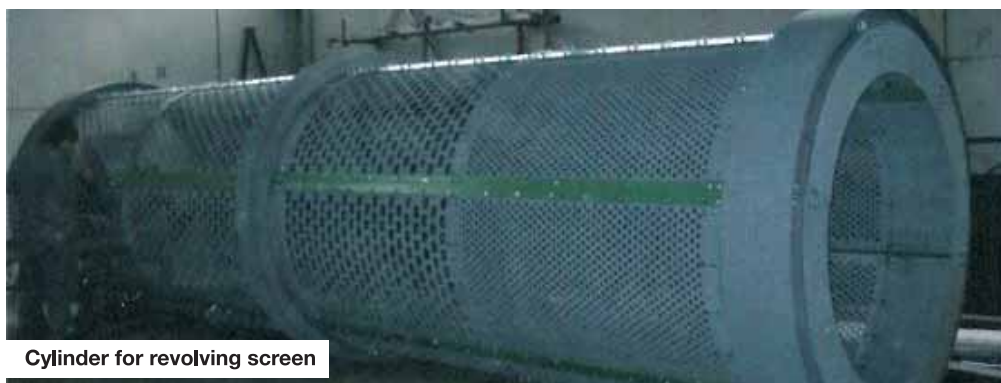
MISCELLANEOUS



Redler Chain



Lime Mixer



Cylinder for revolving screen



Mortar Mixer



Belt Press



Telescopic undloading forklift



Telescopic Forklift

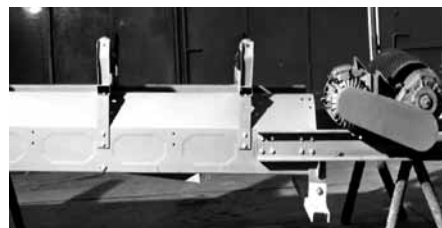
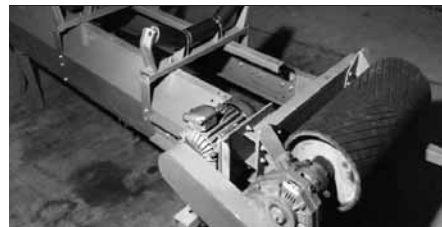
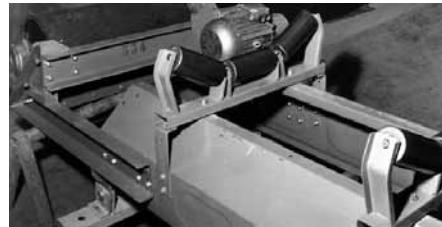
THE HISTORY



1964

Belt conveyor system
Italy

After the acquisition of METMO MOLLICONI S.p.A. in 1999, Sammi can boast reference all around the world, starting from the first projects of MOLLICONI in 1964, up to present days with 50 years of experience on bulk material handling.



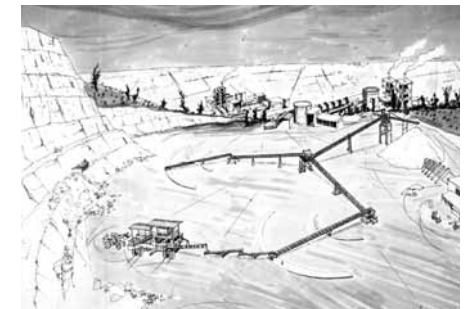
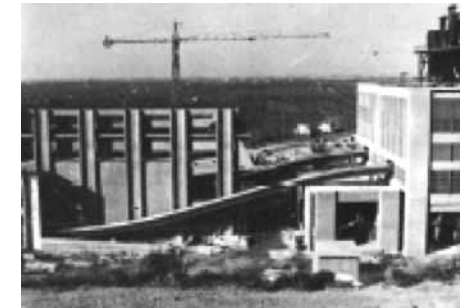
1967

Conveying and proportioning
Italy



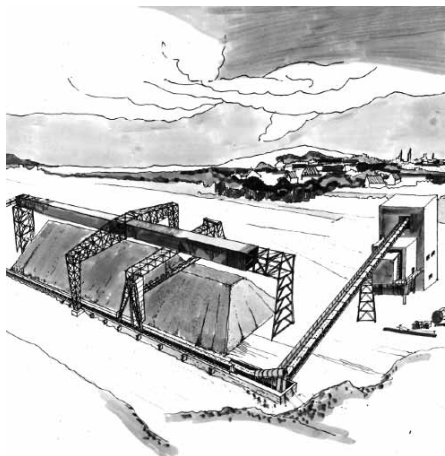
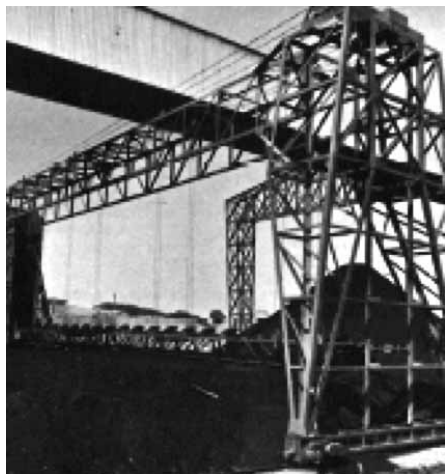
1968

Belt conveying system in a cement quarry
Italy



1969

Stacking and reclaiming
Poland



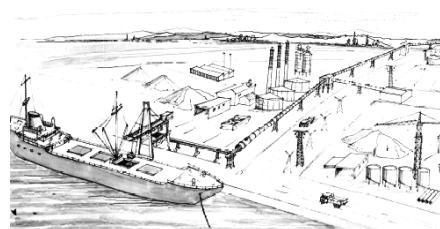
1970

Lime and/or bags transportation plants
Italy



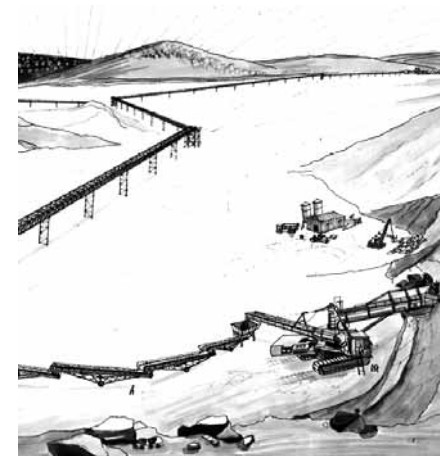
1971

Coal-dust or
alumina conveying
Italy



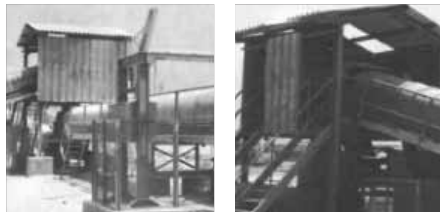
1973

Conveying from pit to job site
Italy



1974

Phosphates handling system
Tunisia



1975

Impresit Bakolori
Nigeria



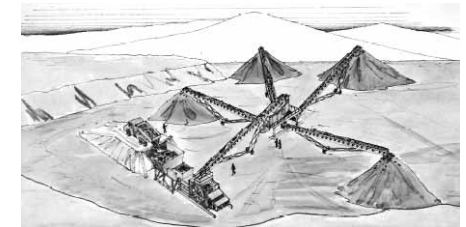
1977

Barges loading plant
Iran



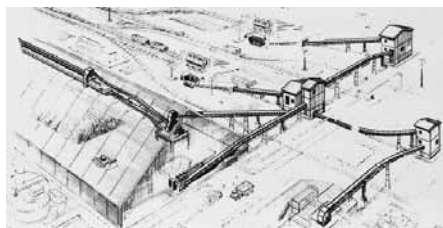
1978

Crushing and screening plants
Italy



1979

Stacking and reclaiming phosphates
Italy



1984

Reclaiming system for a raw materials
Italy



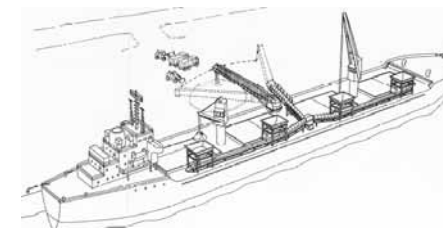
1987

Volzskij Steel Plant - U.S.S.R.
Russia



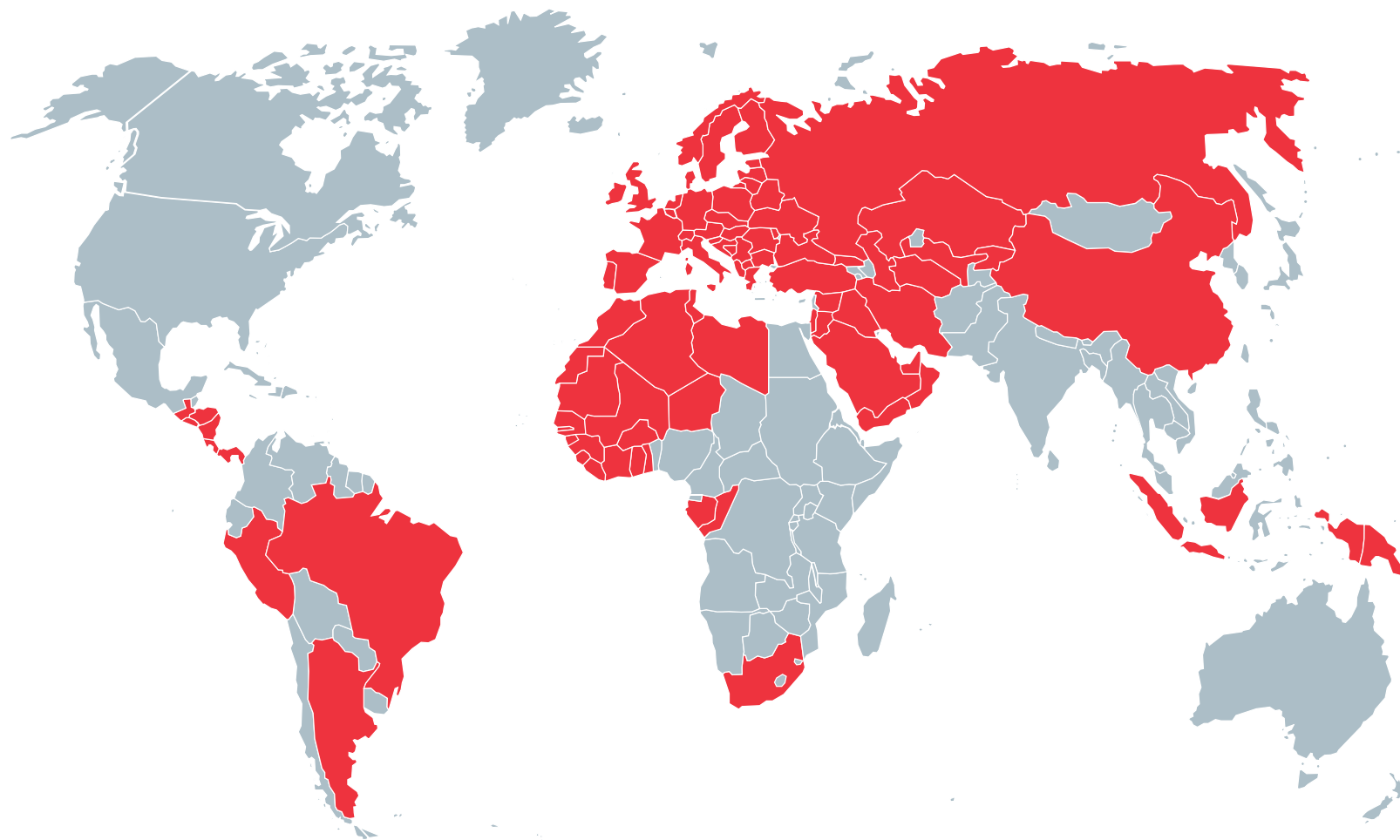
1993

Ship self unloading system
Italy





Proud of our history,
looking to the future



“No barriers exist, only new challenges” *D. G.*





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