

**Custom made projects
and solutions**

**Key
features
of Saip**

www.saipequipment.it



 **SAIP**
ADVANCED
POLYURETHANE EQUIPMENT

Saip

Advanced Polyurethane Equipment

Our Mission: improving performance of our customers



A CERTIFIED COMPANY

SAIP Quality Management is certified according to the requirement of the ISO 9001:2015 (first certificate in 2006). Through the implementation of our management system we guarantee our customers high quality standards by checking and testing every step of the product in-house just making use of products from the certified companies. Continuous improvement is the crucial requisite of how we work and equally essential in pursuing our mission, that is, customers' success.



A COMPANY CHOSEN BY THE UNITED NATIONS

Since 1996 supporting the United Nations in promoting and accelerating the ODS phase-out project in the developing Countries with more than 300 worldwide projects and supplies. From the very beginning, SAIP decided to exclusively develop eco-sustainable technologies, referring to the highest international standards and the best industrial practices: we design well-advanced machines and plants for the success of our customers' businesses without ever losing sight of the value of environmental sustainability.



A COMPANY ORIENTED TO RESEARCH & DEVELOPMENT

SAIP invests considerably in its human and economic resources for the purposes of research and development, which are an integral part of its culture. It collaborates with the major producers of polyurethane, steel and other raw materials, it pursues new partnerships and endeavours persuaded that best solutions stem from synergies. One example is CEDEPA, the first and largest R&D center in the world for the technological development of panel production methods: it is equipped with a continuous panel production line that can be used for testing and training activities.



A LEADING COMPANY

Since 1978 SAIP is one of the worldwide leading companies in the designing and manufacturing of polyurethane processing equipment. Its innovative approach and the strong development abilities have been making its business and commitments grown very quickly all over the world. SAIP proposes itself as the engineer of change to implementing and managing customized solutions and turn-key projects. SAIP ensures the highest level of project team specialization as well as qualified technical assistance on site. SAIP is the right partner to rely on to making your business grown.

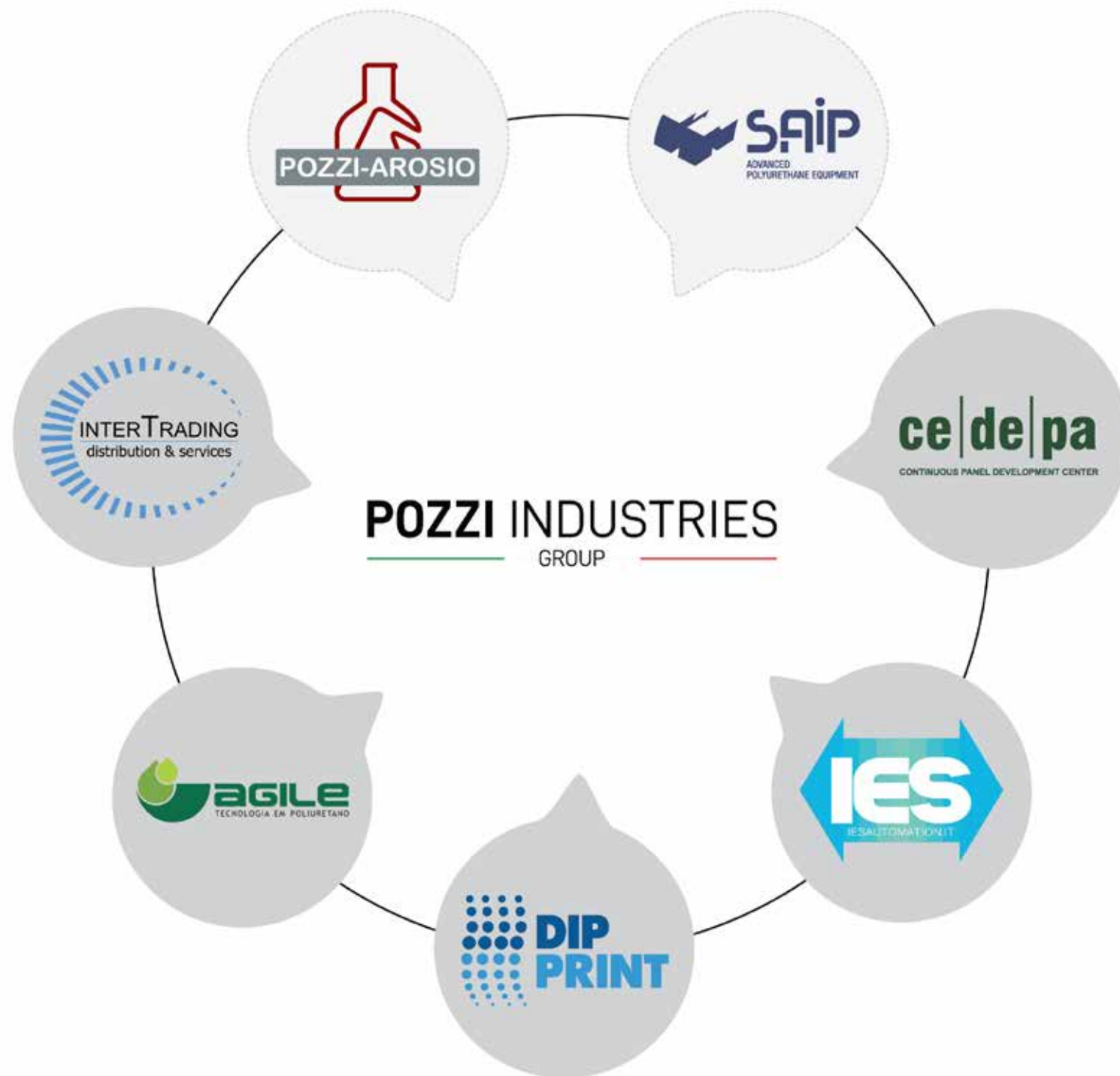
saip

The Group

An Italian group that has been operating in the polyurethane market since the Seventies.



A pool of diverse expertise companies cooperating in a perfect synergy to offer complete solutions for construction, furniture, refrigeration and automotive industries among others.
Best in class know how in the field of chemistry, processing equipment, automation, distribution and surfaces



Targets

A single company, a single Group countless applications.

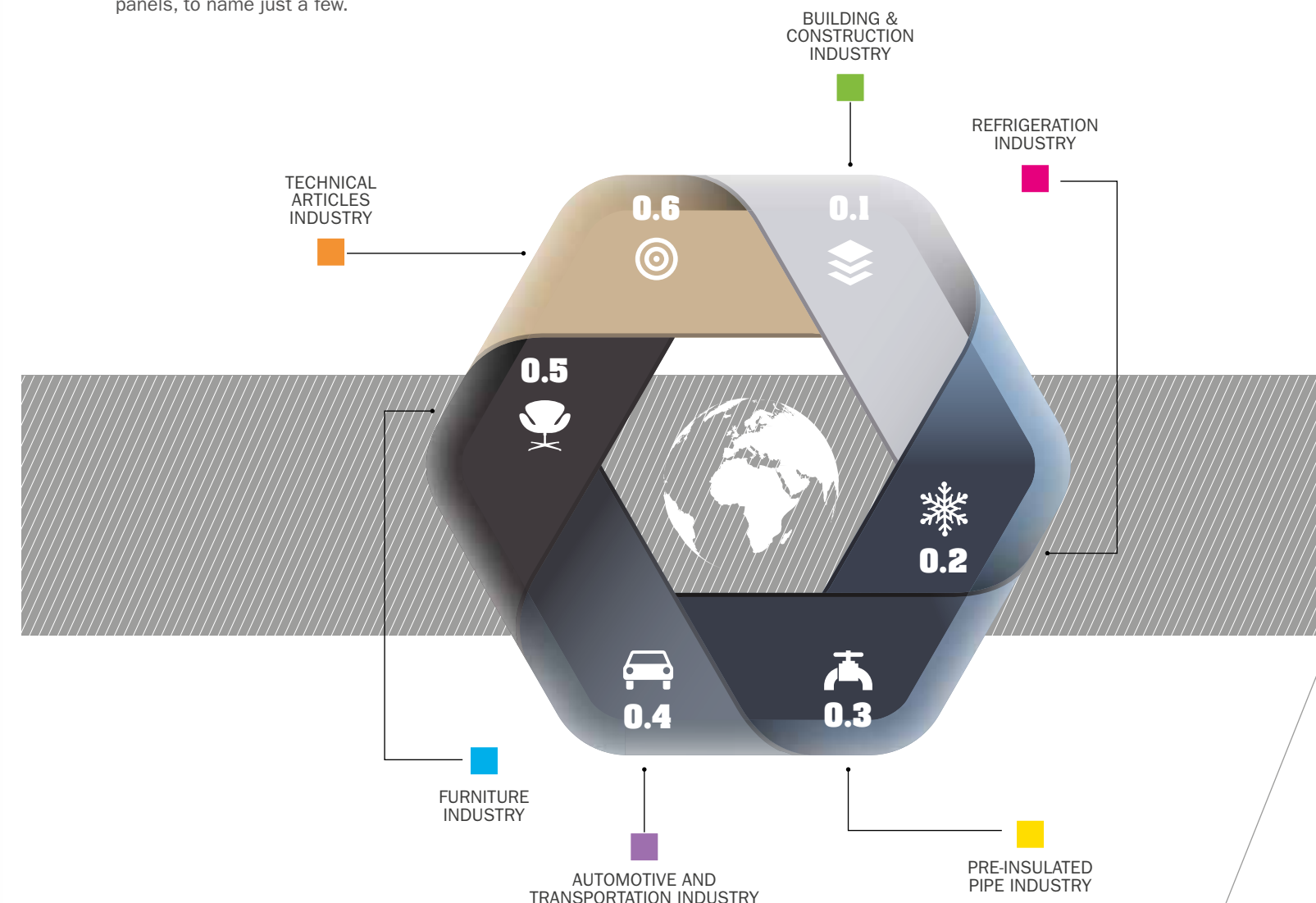


SAIP is a flexible company that supplies superior solutions for various industrial sectors.
Thanks also to **POZZI INDUSTRIES**, the Group which it belongs to, SAIP can offer different skills integrated to fully satisfy customer's needs.

SAIP designs and manufactures cutting-edge technologies to meet the growing demand for effective products in terms of thermal insulation and energy savings, in particular for the building & construction industry and for refrigeration.

It has also developed innovative solutions for the production of pre-insulated pipes, employed by major worldwide companies to install pipelines, for the furniture industry and for automotive.

SAIP technology is also used to build sport equipment, water and air crafts components, gaskets for electrical panels, to name just a few.



Contitech RF

Complete solutions for the production of Rigid Facing insulated panels

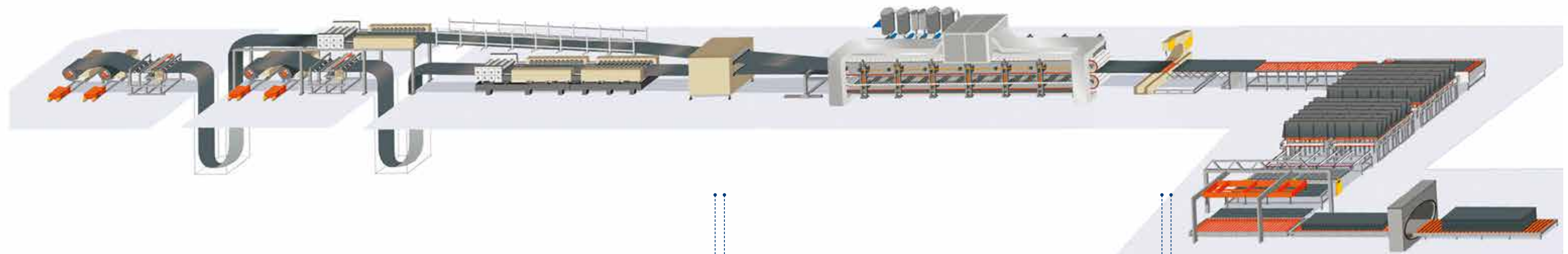


SAIP offers you the complete solutions for the manufacturing of Industrial & Architectural Roof & Wall sandwich panels with PUR, PIR & RW Core as well as the Industrial & Residential Sectional Door Panels.

The continuous panels production method consists in the laying down of the polyurethane reactive mixture between two continuously moving facings. The reaction and the hardening of the polyurethane mixture takes place inside a continuously moving press or double press conveyor. The production speed depends on the foam mixture curing time, the thickness of the panels and panels minimum cutting length.

Our supply includes:

- The chemicals storage farms and chemicals handling system
- The metal sheet roll forming section
- High pressure foaming dispensing machines from 2 up to 8 components and more which fit for new generations of blowing agents.
- Continuously moving press conveyor from 12 up to 42 meters length
- On-line cutting group, band saw and disc system
- Panels handling section which includes the panels stacking, curing and the panels bundle packing equipment
- Mineral and rock wool boards processing and gluing sections



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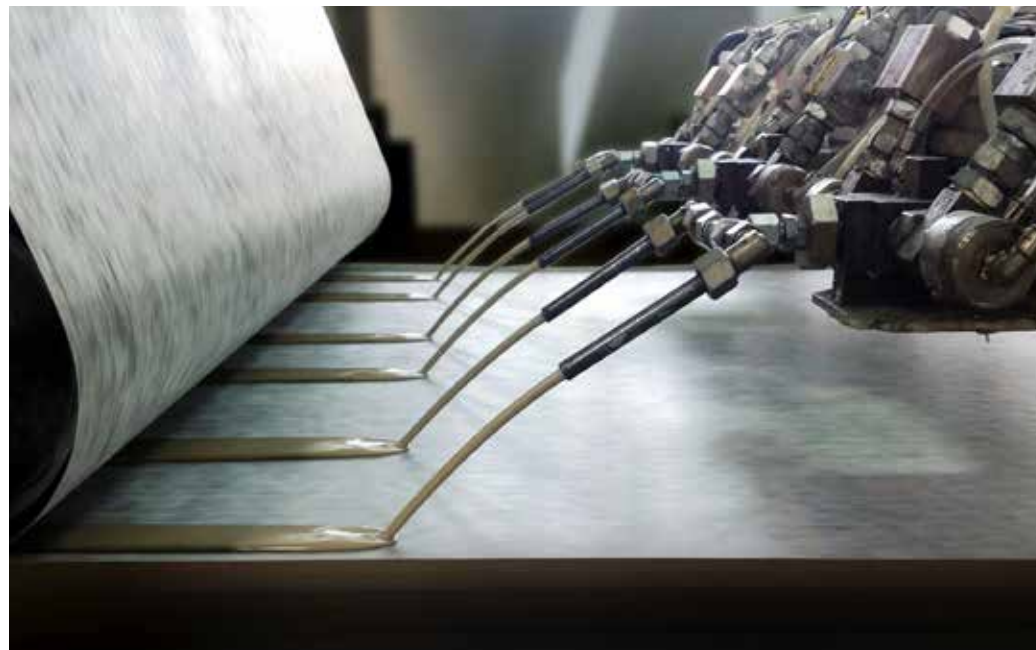
METAL SHEET FORMING AREA

02

PANEL FORMING AREA

03

PANEL HANDLING AREA



SAIP EQUIPMENT

Contitech FF

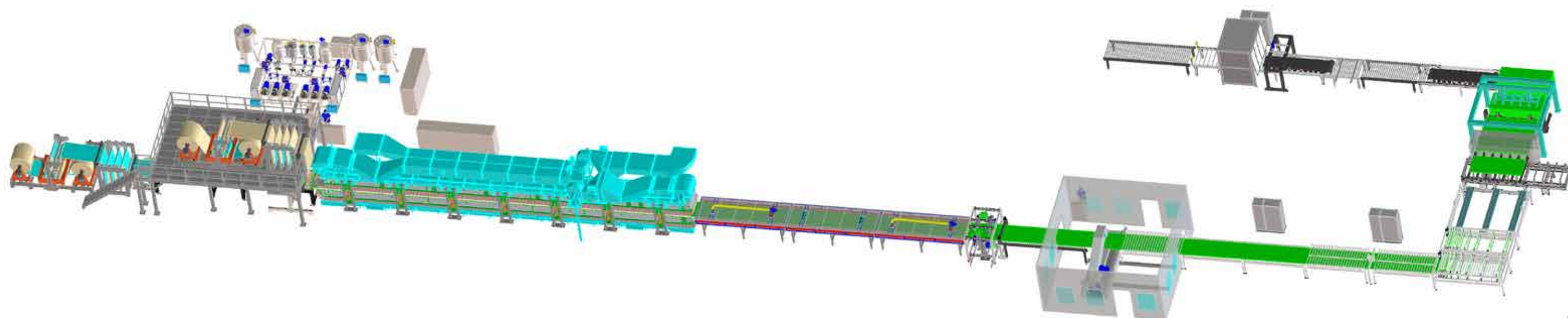
Complete solutions for the production of Flexible Facing insulated panels



SAIP designs and manufactures also turn key high speed lines for the production of flexible faced insulated boards with PUR/PIR core. The line's production speed is up to 60 meters per minute. The line also includes an automatic handling system which is capable of running at the maximum speed.

Our supply includes:

- The chemicals storage farms and chemicals handling system.
- 1+1 or 2+2 decoilers with automatic joining system.
- High pressure foaming dispensing multi streams machines.
- Different foam laydown technologies.
- Continuously moving press conveyor from 12 up to 42 meters length.
- Panels cutting & handling section which includes the panels cutting and side milling, stacking, curing and the panels bundle packing.



Ditech

Complete solutions for the discontinuous production of insulating panels.



The discontinuous method consists in the polyurethane foam mixture pouring or injection into the cavity between two facings within the platens of a standing press by a low or high pressure two components foam dispensing machines, which are either especially designed according to the used foaming method or supplied as standard equipment.

In the discontinuous process different pouring methods are used in order to achieve the best results in terms of foam distribution within the two facings. The methods are the multishots pouring at close press, the single shot at close press, the lance withdrawal at close press and the open pouring at open press.

The choice of the suitable system is mainly related to the product design and to the required technological results. In order to have a good final product, the foam distribution and the pouring method are very important so as to avoid air traps or overlaps of foam and to obtain homogeneous density on the whole surface.

Our supply includes:

- Low and high pressure two components foam dispensing machines with output up to 300 Kg/min.
- Foaming presses 1+1 and 2+2 system, with platens dimensions designed and manufactured according to customer's requirements and applications.



FOAMING PRESS

DOSING AND PANEL FORMING AREA



SAIP EQUIPMENT

Pipetech

Complete solutions for pre-insulated pipes production



PIPETECH is the SAIP technology that designs and builds specific systems for the thermal insulation of pipes (PIPE IN PIPE), the insulation and reinforcement of pipe joints (PIPE JOINT) and other special specifications for a multitude of uses and destinations. Over 15 years SAIP has developed important partnerships with the major European players in this sector, working alongside them in the development of projects and customized plants. Moreover SAIP trains the operators first hand to learn the skills required to work autonomously, guaranteeing qualified assistance as well as the prompt supply of spare parts and auxiliary materials.

Our supply Includes:

- Customized discontinuous production Lines using pouring technology for producing pipelines in the applications of Oil & Gas and District Heating & Cooling
- Customized discontinuous & continuous production Lines using spray technology for producing pipelines in the applications of Oil & Gas and District Heating & Cooling
- Completed lines for producing flexible pre insulated industrial pipes



Reftech

Complete solutions for the insulation with polyurethane foam of industrial and domestic refrigerators



Complete solutions and custom made equipment for the domestic and industrial refrigerators insulations with polyurethane foam which include:

- Complete lines for refrigerators cabinets foaming with fixed and movable fixtures.
- Complete lines for refrigerators doors foaming such as manual systems, drum unit, paternoster unit and various carousel systems.
- Cabinets foaming fixtures, hydraulic types, automatically adjustable, face-up and face-down foaming method.
- Cabinets foaming fixtures, pneumatic types, automatically adjustable, face-down and face-up foaming method.
- Manual and automatic adjustable cabinets foaming plugs.
- Adjustable doors foaming moulds.
- Foaming process automation.
- Polyurethane components storage and blending system for polyols with new generation of foam blowing agents.
- Complete lines for pre-assembling of cabinets and plastic inner liner.
- Complete lines for final assembling of refrigerators cabinets including the assembling line for various components (compressor, doors and etc.).
- Compressor charging and vacuum system, electrical and functional test system.
- Design and product engineering and automation of the manufacturing process.





SAIP SOLUTIONS

Saiptech

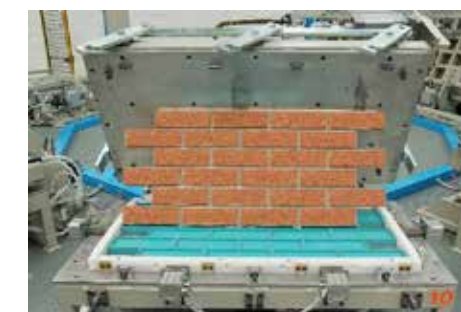
Customized and turnkey solutions
for any application of polyurethane

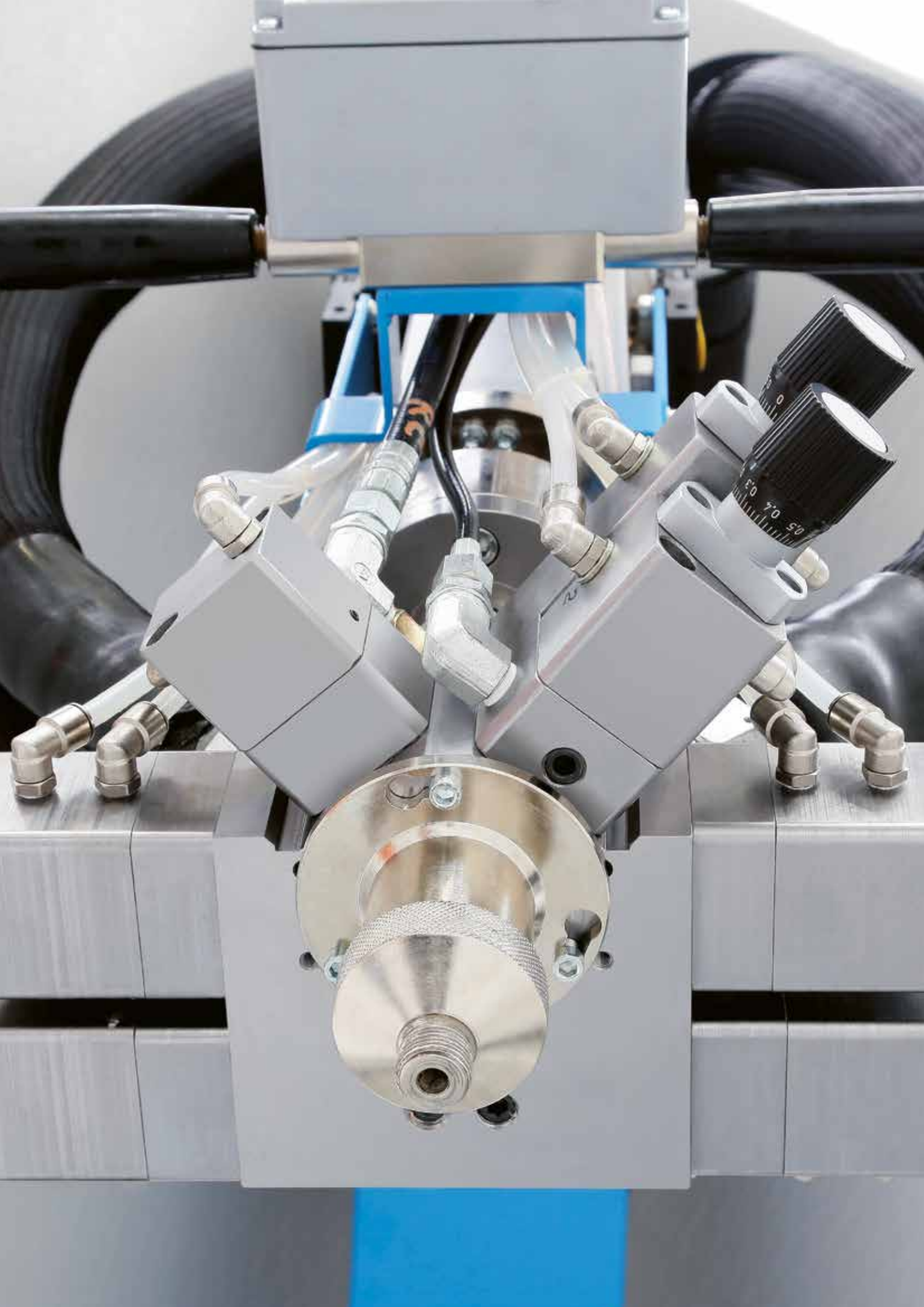


SAIPTECH is the technology serving ideas, the area where SAIP diversified skills come together in a perfect synthesis. In the various sectors where polyurethane, epoxy and silicone resin are employed, SAIPTECH solutions can achieve a very detailed level of customization.

Solutions:

- Multistation rotary tables
- Oval carousels
- Stationary presses and mould press carriers
- Foaming automation with cartesian manipulators and robots
- Mould for presses
- Gasketing systems
- 3D surface decoration system
- Molded technology in pu for the furniture industry





SAIP EQUIPMENT

Elastotech

Complete solutions for technical elastomer industry



Designed and built to dose and mix MDI pre-polymer based elastomers, the EL series low pressure machines are designed and developed to provide the user with easy use, precision and reliability. They are sturdy and adapt to any condition and production environment.

Our supply includes:

- Casting machines up to 6 components and up to 130°C processing temperature
- Auxiliaries equipment such as curing ovens, centrifugal ovens, moulds and much more.



Hydrocarbons Solutions

Advanced technology for the continuous and discontinuous foaming process.



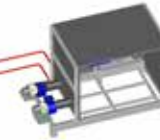
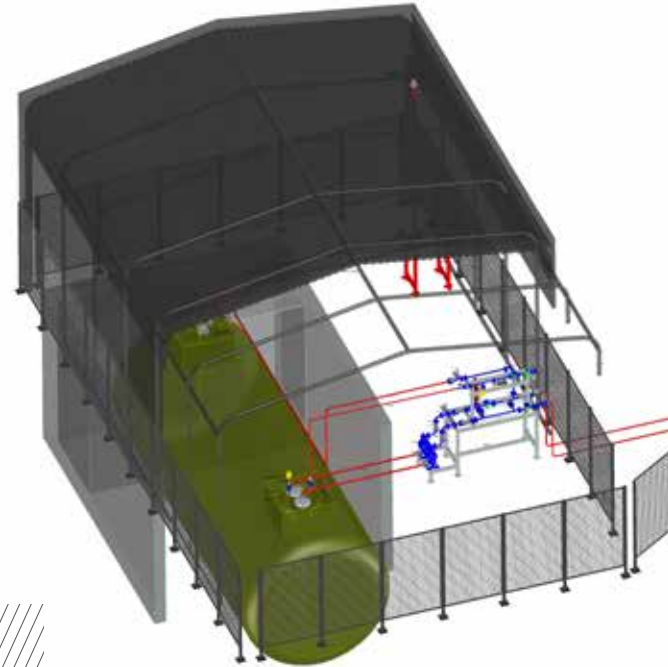
Our supply includes:

In the continuous process:

- ▶ LPS Technology: The HC's is added and mixed with the Polyol blend through a dynamic mixer in the Polyol low pressure stream of the foam dispensing machine then is delivered to the Polyol high pressure stream just before getting to the mixing and pouring head.
- ▶ HPS Technology: The HC's is added and mixed with the Polyol blend through a static mixer in the Polyol high pressure stream of the foam dispensing machine just before getting to the mixing and pouring head.

In the discontinuous process:

- ▶ The in house pre-blending of Polyol with HCs (PBS system)
- ▶ The ready-to-use HCs / Polyol blend (RTU system)
- ▶ The PTS system (Third stream)



High pressure

Foam dispensing machines



SAIP high pressure foam dispensing machines are designed for industrial use and for any productivity need. The units are equipped with a full range of accessories to maximize control and to guarantee a correct operation.

SAIP high pressure foam dispensing machines are available for output from 10 to 200 Kg/min and variable ratio between 1:5 to 5:1. The machines are powered either by a PLC and Saip touch screen operator process control board or by an industrial PC, to set and display the working process parameters.

SAIP high pressure foam dispensing machines are suitable to process polyurethane foams based on HCFC's, HFC's, HFO's, methyl formate and water blown with or without co - blowing agent.



MIXING HEAD



DOSING GROUP WITH MAGNETIC COUPLING

MODEL	RATIO	OUTPUT A+B KG/MIN		OUTPUT A+B GR/SEC		TANKS CAPACITY EACH/LT		INSTALLED POWER KW		WEIGHT KG	
		min	max	min	max						
SP2 smart 10	1:1	3	11,5	50	192	50	100	11	1000	1100	
SP2 smart 20	1:1	5	22,5	83	375	50	100	16	1000	1100	
SP2 smart 30	2:1	7	32,5	116	540	50	100	21	1050	1150	
SP2 smart 40	1:1	10	45	166	750	50	100	27	1050	1150	
SP2 smart 60	1:1	15	72	250	1200	50	100	35	1100	1200	
SP2 smart 60	2:1	14	69	233	1150	50	100	34	1100	1200	
SPB 20	1:1	4	19,5	66	325	100	250	20	30	2000	2200
SPB 40	1:1	7,5	38	125	630	100	250	27	37	2000	2200
SPB 40	2:1	5,5	28	90	465	100	250	22	32	2000	2200
SPB 60	2:1	12,5	63	210	1050	100	250	36	45	2000	2200
SPB 100	1:1	18,5	91,5	305	1525	100	250	43	52	2000	2200
SPB 200	1:1	36	178,5	595	2975	250		82		2600	

The machines outputs refer to materials with a viscosity not exceeding 2000 cps and an average specific weight of 1,1 gr/cc. at 20 °C. Output values valid for a main frequency of 50 cycles (for a main frequency of 60 cycles output increase by 20%).



SP2 SMART

SPB



SPBS



SDD



STORAGE TANKS



COMPONENTS
METERING GROUP



S/SE

SAIP EQUIPMENT

Low pressure

Foam dispensing machines



SAIP low pressure polyurethane foam dispensing machines are available in a wide range of models with outputs variable from few grams to several kilos and components ratio variation from 1:5 to 5:1. The components' carbon-steel tanks are assembled vertically and have a capacity of 50, 100 and 280 liters each. They are equipped with visual levels control and with heat exchangers with heating elements.

Output and ratio variation could be powered either by a mechanical system with manual components flow adjustment (model SE) or by an electronic system (model S).
SAIP low pressure foam dispensing machines are equipped with mixing and pouring heads, complete with dynamic mixer, mixing chamber, recycling and pouring pressures valves and mixing head seals forced lubrication. Automatic and timed controlled mixing head chamber cleaning system.
The machines are powered by a PLC control and a Saip touch screen operator process control to set and display the working parameters.

The advantages

- User friendly
- High quality construction materials
- Easy maintenance
- Precise metering, accuracy and repeatability
- Calibration directly on the mixing head
- High mixing precision and uniformity
- Accurate components temperature conditioning
- Automatic mixer cleaning

Optionals

- Tanks automatic loading
- Chiller unit
- Air circuit dryer
- Air nucleation unit
- Additional programs
- Program number display
- Tank stirrers
- Tank and heat exchanger insulation
- Mixer water cleaning system
- Filters to the metering pumps
- Silica gel filters
- Colours unit

The machines are built in conformity with the machinery directives 2006/42/CE.

MODEL	RATIO	OUTPUT A+B KG/MIN		OUTPUT A+B GR/SEC		TANKS CAPACITY EACH/LT		INSTALLED POWER KW	WEIGHT KG
		min	max	min	max				
SDD	1 : 1	0,18	1,2	3	20	50		5	500
S/SE7	1:1 - 2:1	1,5	7	25	120	50	100	5	500
S/SE15	1:1 - 2:1	3	15	50	250	50	100	5	500
S/SE25	2 : 1	5	25	80	420	50	100	10	600
S/SE30	1 : 1	6	30	100	500	50	100	10	600
S/SE60	1:1 - 2:1	15	60	250	1000	50	100	10	700
S/SE80	1:1 - 2:1	20	80	330	1350	50	100	15	700
S/SE100	1:1 - 2:1	22	100	670	1670	50	100	15	700
S/SE120	1:1 - 2:1	24	120	400	2000	50	100	15	700
S/SE200	2:1	50	200	830	3335	100	280	28	900
SE180	1 : 1	36	180	180	3000	100	280	28	900
SE300	1 : 1	60	300	1000	5000	100	280	28	900

The machines outputs refer to materias with a viscosity not exceeding 2000 cps at 20°C, polyol average specific weight of 1,05 gr/cc and isocyanate average specific weight of 1,20 g/cc. Output values valid for a main frequency of 50 cycles.



S

SAIP IS

THE PARTNER

YOU CAN RELY ON.

SAIP

ADVANCED
POLYURETHANE EQUIPMENT



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POZZI INDUSTRIES
GROUP

All data given in this leaflet are subject to change by the manufacturer without any prior notification.

