
System&Process

Molded technology in PU furniture business

Pozzi Arosio Polyurethane System



ADVANCED
POLYURETHANE SYSTEMS

POZZI INDUSTRIES

MADE IN ITALY





POZZI INDUSTRIES
MADE IN ITALY



POZZI-AROSIO

A HISTORY, AN IDENTITY

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MAIN STEPS

1

When the company was founded in the early fifties, Pozzi-Arosio used to manufacture and market paints.

2

Pozzi-Arosio was among the first in Italy to enter the polyurethane field.

3

In 1978 Pozzi-Arosio took over SAIP, a leading company in the production of polyurethane equipment for all the different fields of application.

4

From the beginning Pozzi-Arosio has opened commercial branches in the places of the world where there was a real operational need.

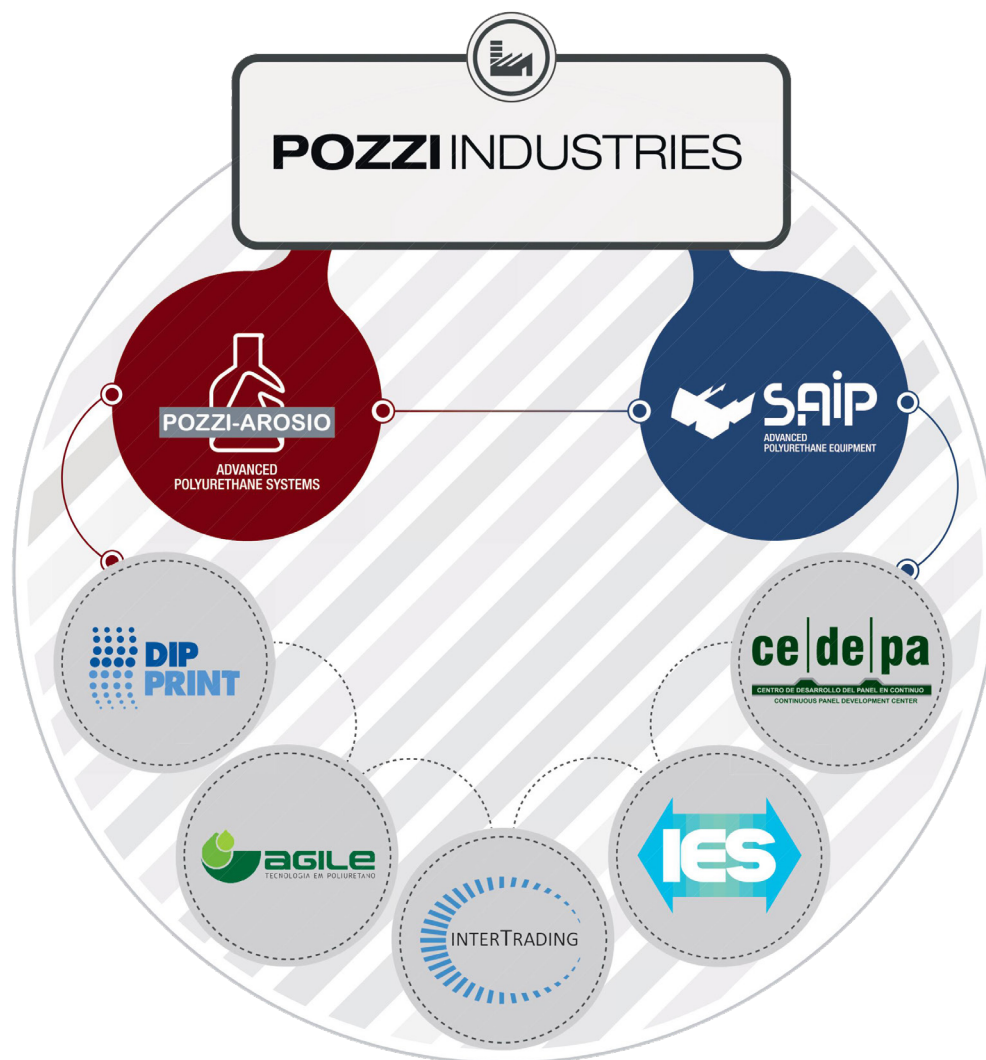
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In 2012 Pozzi Arosio was accredited the UNI EN ISO 9001:2008 with the prestigious International Institute TUV RHEINLAND.

6

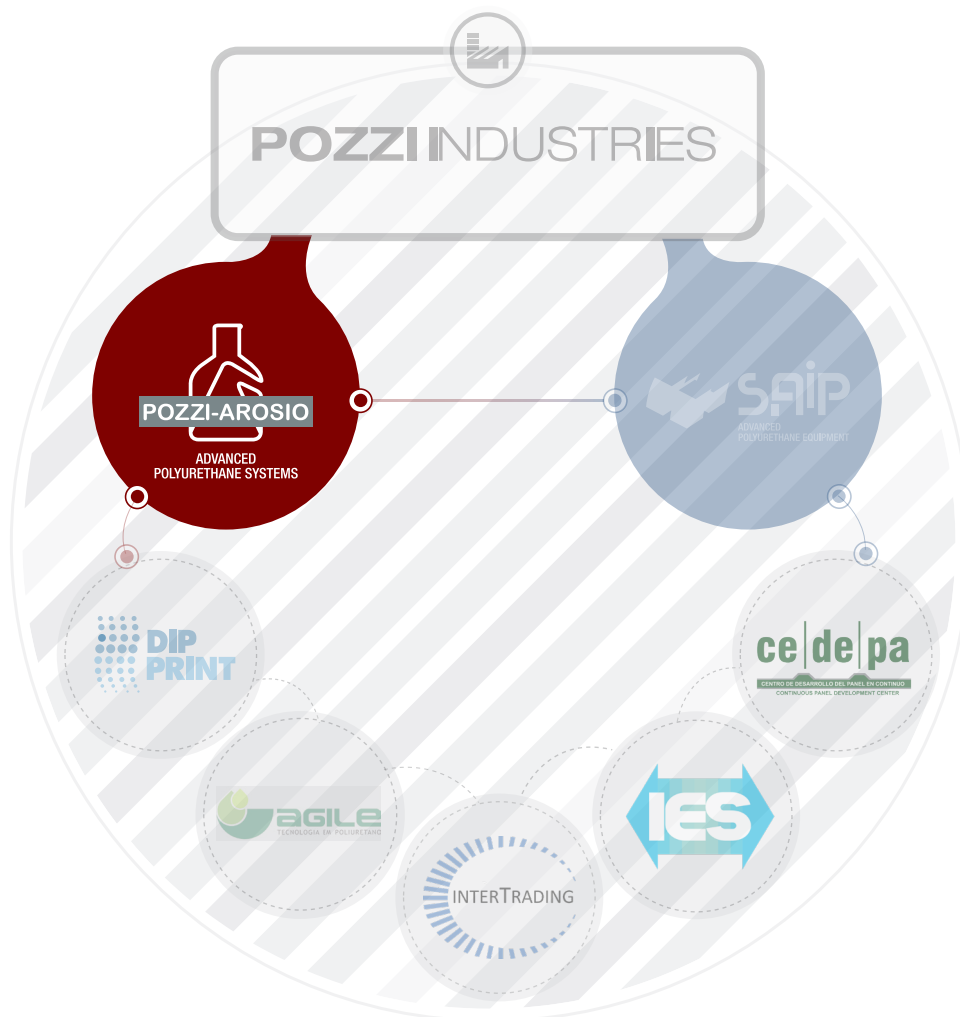
In 2016 Pozzi-Arosio took over INTER TRADING, a trading company.





**NOT ONLY A NUMBER
OF COMPANIES BUT A STRONG
AND WELL DEFINED GROUP.**

Pozzi Industries is the synergy of competences in chemical, equipment, research, surfaces and decoration. We can provide high quality solution for a single customer necessity, or organize a synergic multicompany answer to complex requests.



**AN OUTSTANDING POLYURETHANE
SYSTEM-HOUSE OPERATING
IN THE INTERNATIONAL
POLYURETHANE SCENARIO.**

During its long growing path
Pozzi-Arosio built up a team of wide
experienced people in polyurethane
systems. We are now able to offer
industrial solutions tailored around
the customer.



**SAIP IS AN INNOVATION
AND FULL-QUALITY DRIVEN
EQUIPMENT DESIGNER AND
MANUFACTURER FOR THE
POLYURETHANE INDUSTRY.**

SAIP is committed to always developing innovative solutions for its customers' sustainable business success, and profitable growth. SAIP provides its customers with exclusive technical assistance focused on their needs.

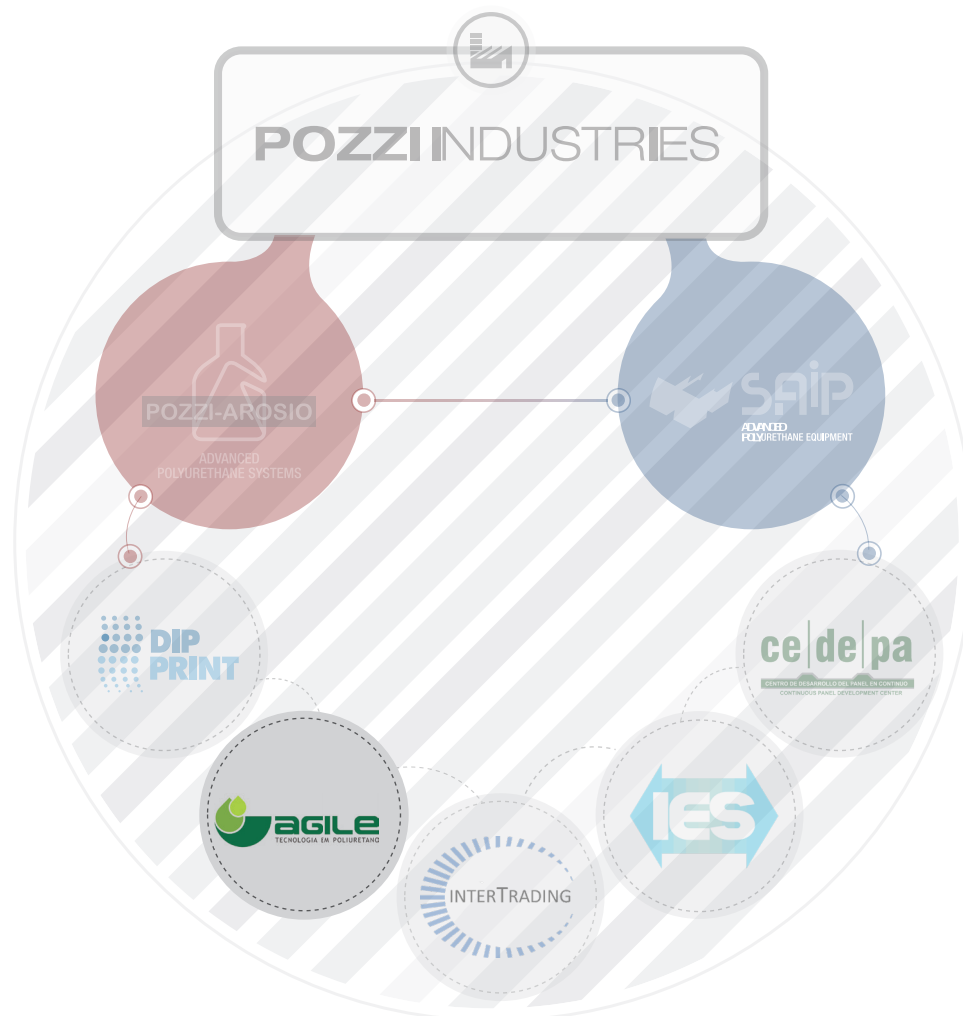
DIP PRINT

Molded technology
in PU furniture business



DIP PRINT™ TECHNOLOGY IS REALLY UNIQUE FOR PRINTING QUALITY DEFINITION AND RENDERING EVEN FOR CONVOLUTED SHAPES ALLOWING AT THE SAME TIME THE MAXIMUM VARIETY OF SUBSTRATES.

DIP PRINT™ meets every decorating requirement on tridimensional surfaces in plastic, metal, wood, polyurethane and not only. DIP PRINT™ allows the use for outside decorations of cheaper, more suitable (e.g. fire resistant) or lighter materials, and consequently considerable savings in costs for raw materials, transport, handling.

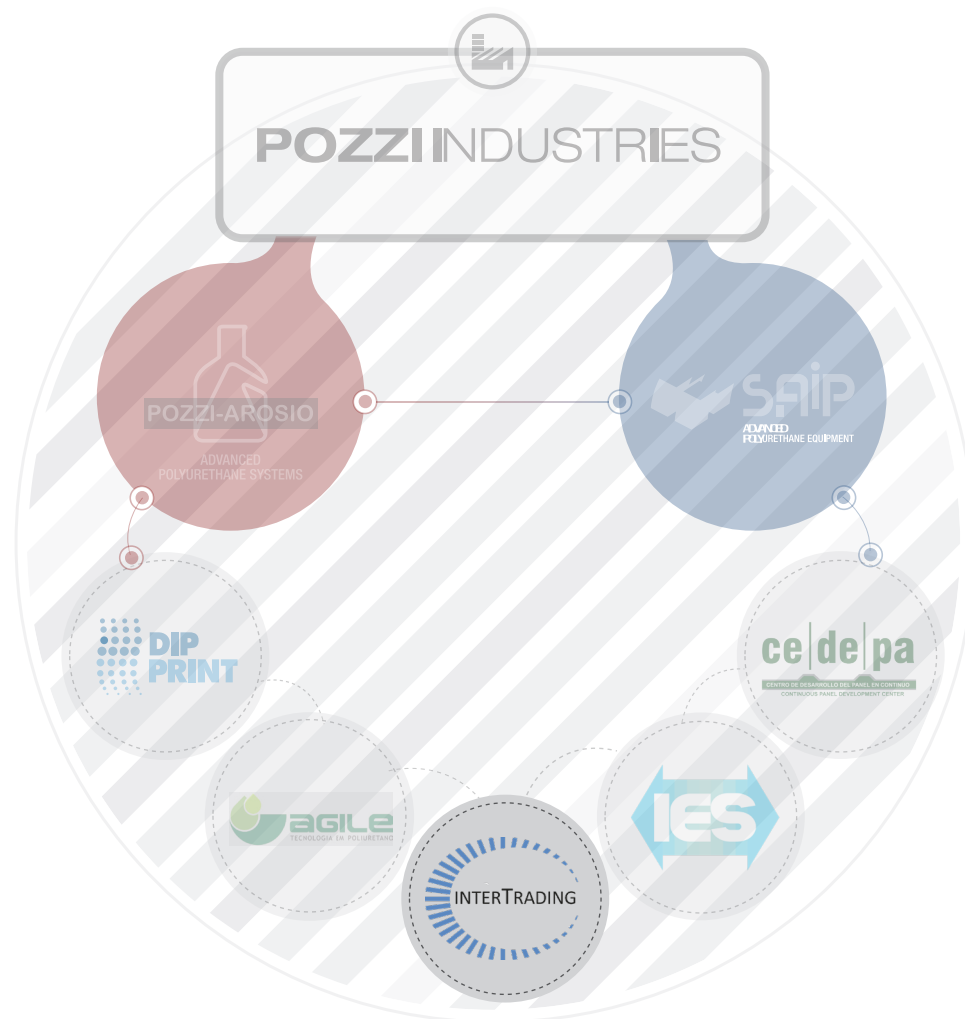


AGILE IS THE RESULT OF A JOINT VENTURE BETWEEN POZZI INDUSTRIES GROUP AND A BRAZILIAN LOCAL PARTNER THAT HAS OVER 30 YEARS OF EXPERIENCE IN THE POLYURETHANE INDUSTRIES.

Agile is an Integrated Solution that includes Polyurethane Systems, Equipment and a highly professional Consultancy Service for the study, planning and implementation of Turnkey Projects.

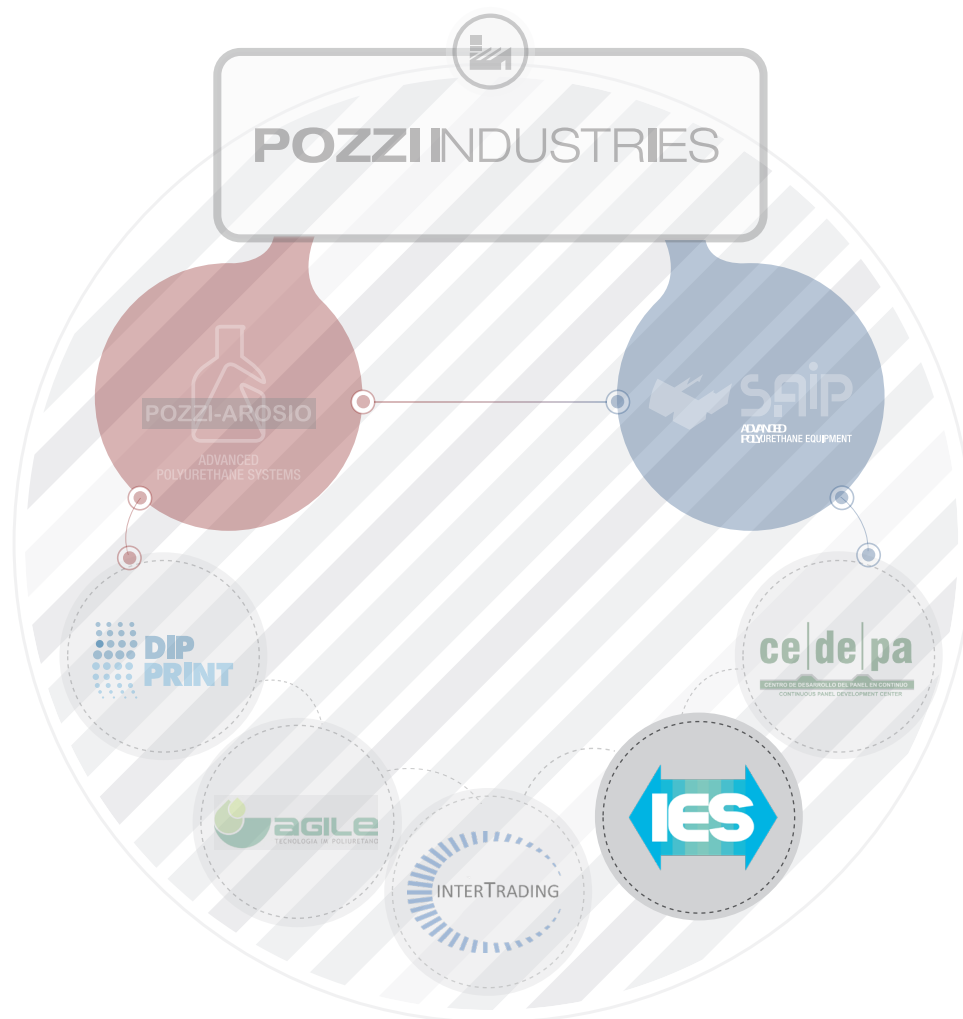
INTER TRADING

Molded technology
in PU furniture business



**TRADING WITH EXPERIENCE
AND PROFESSIONALISM ABLE TO
OFFER PERSONALIZED SERVICES.**

Inter Trading for more than 40 years works as a trader in the market of chemical products supplying key raw materials and differentiated product for large and small company based in Italy and Europe.



INDUSTRIAL ELECTRONIC SOLUTIONS FOR AUTOMATION

Providing customers with support
for the electronic components of
machinery.



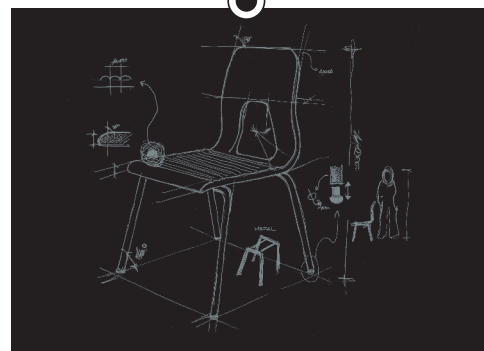
**CE|DE|PA IS A UNIQUE,
STATE-OF-THE-ART
AND INDUSTRIAL-SCALE LINE
FULLY DEVOTED TO TESTING
AND PROTOTYPING ACTIVITIES.**

Conceived to allow players in the construction industry worldwide accelerate the development of novel solutions for the manufacturing of polyurethane-made panels for thermal insulation produced with the specific technology of continuous double lamination process.

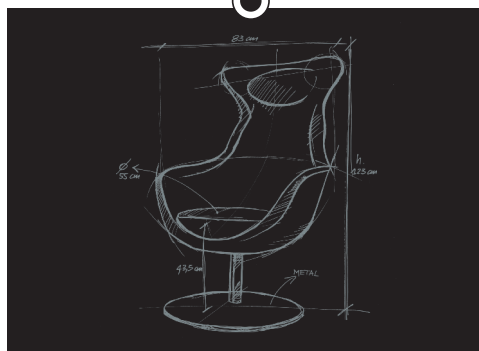
FURNITURE IN PU

Molded technology
in PU furniture business

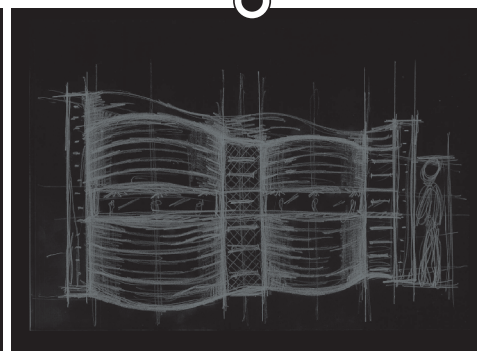
POLYURETHANE



INTEGRAL SKIN



FLEXIBLE



RIGID FOAM



COMPACT

WHAT WE NEED

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in PU furniture business

EQUIPMENT

- high pressure dosing machines
- low pressure dosing machines
- customised plants

MOLDS

- epoxy resin
- silicon rubber
- metallic

RELEASE AGENT

- special mix of solvents

METAL INSERTS

PU SYSTEMS

- foam
 - flexible foam
 - integral skin
 - expanded low to high density
- compact
 - high density with or without solvent

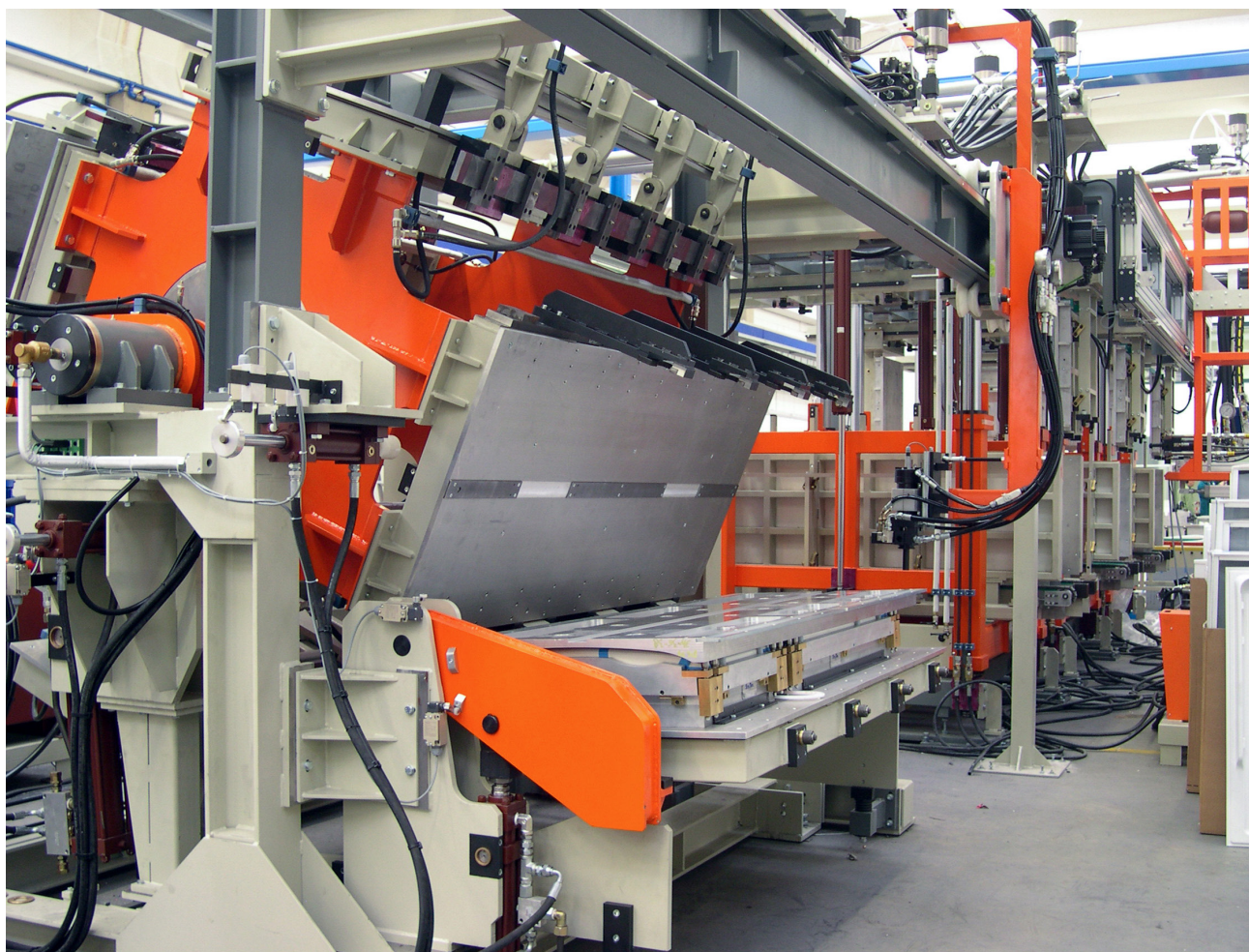
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in PU furniture business

● EQUIPMENT

CUSTOMISED PLANTS

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in PU furniture business

- EQUIPMENT ●
- MOLDS ●
- RELEASE AGENT ●
- METAL INSERTS ●
- PU SYSTEMS ●

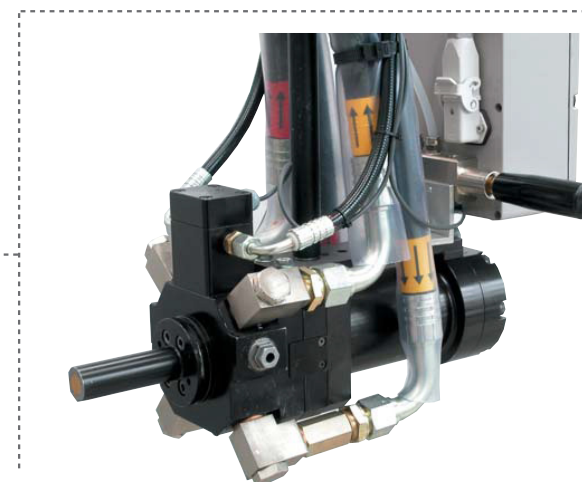


DOSING MACHINES

HIGH PRESSURE

Molded technology
in PU furniture business

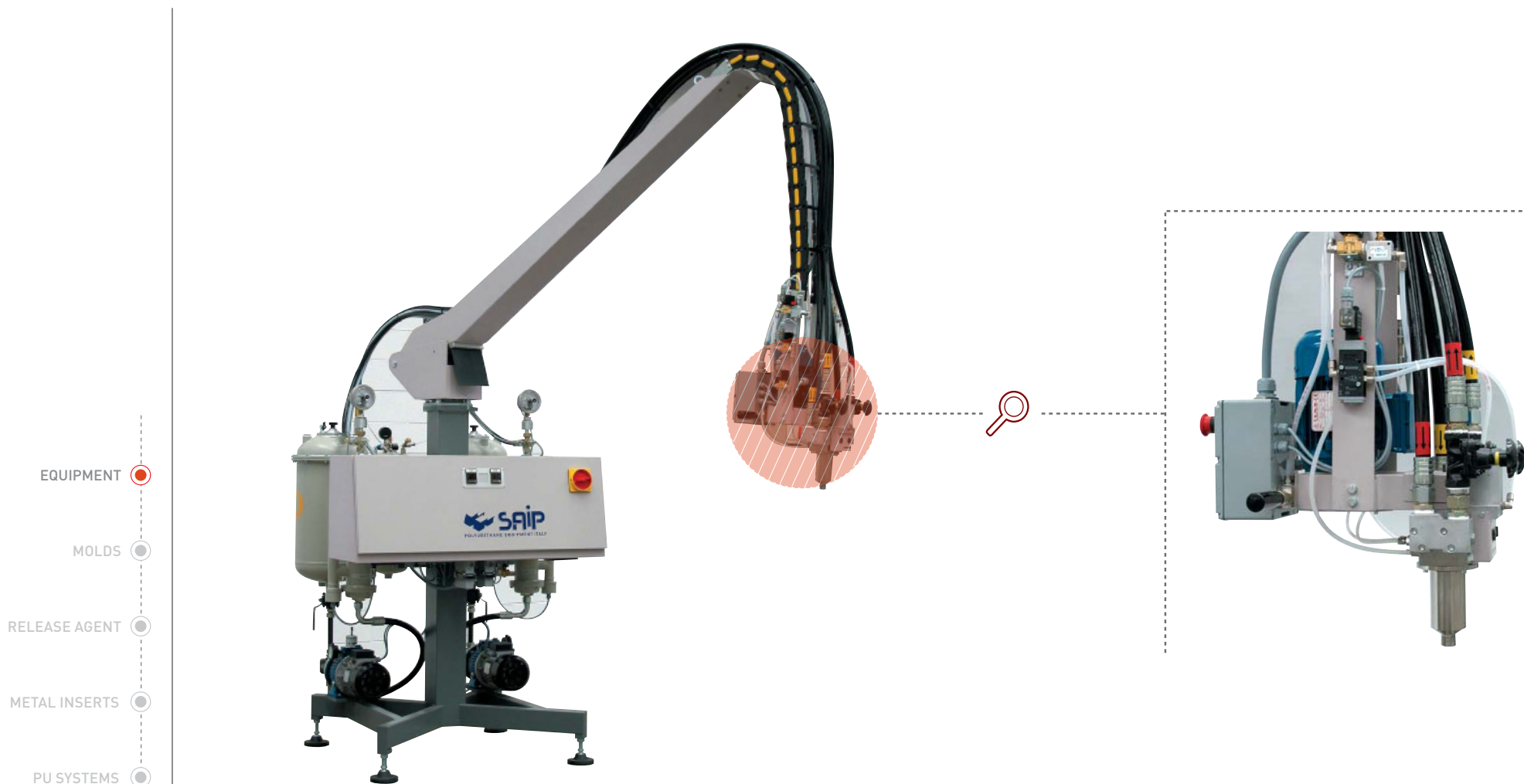
- EQUIPMENT ●
- MOLDS ●
- RELEASE AGENT ●
- METAL INSERTS ●
- PU SYSTEMS ●



DOSING MACHINES

LOW PRESSURE

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● MOLDS

MOLDS: SOME TYPES

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There are some types of molds,
involved in our processes
according to the techniques.

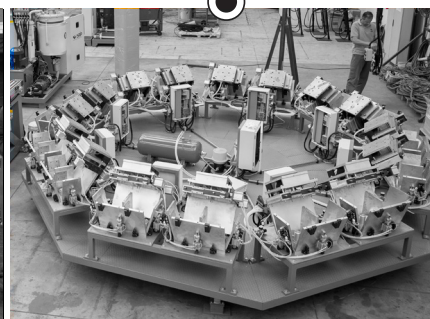
MOLDS



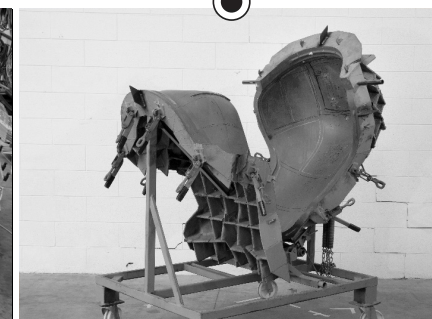
TERMOSTATED



ON CAROUSEL
WITH TROLLEY



ON ROUND TABLE
WITH PRESS



MANUAL OR
PNEUMATIC CLOSURE

EPOXY RESIN
SILICON RUBBER
METALLIC

EPOXY RESIN

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in PU furniture business



EQUIPMENT

MOLDS

RELEASE AGENT

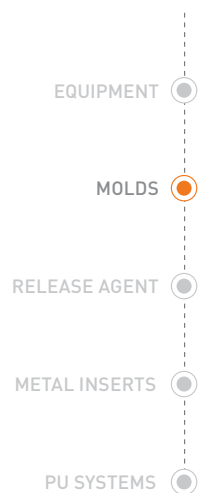
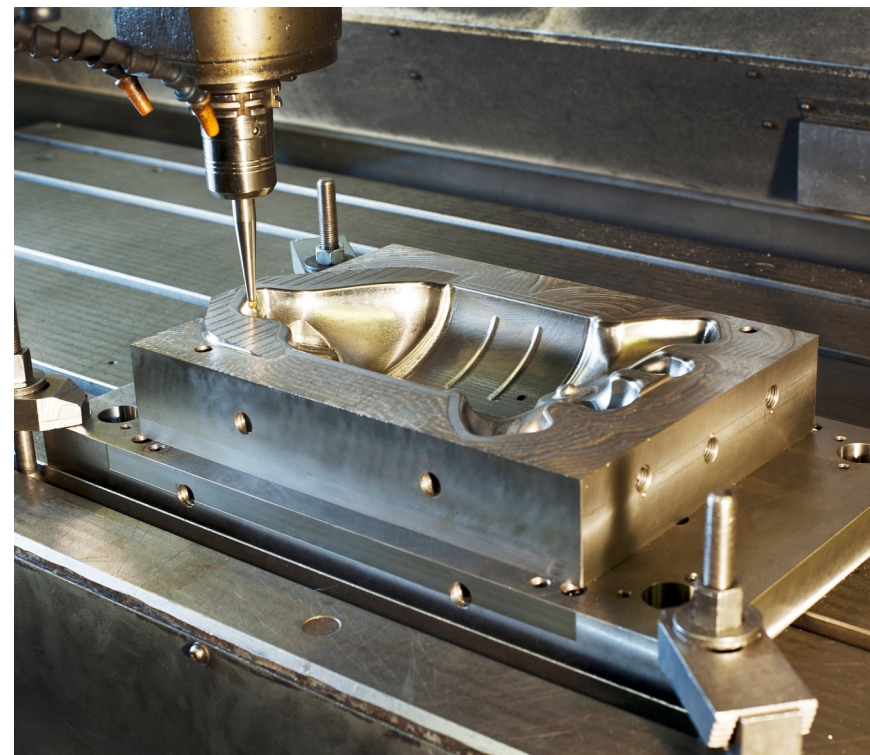
METAL INSERTS

PU SYSTEMS

SILICON RUBBER & METALLIC

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On the left a **silicon rubber**,
On the right a **metallic mold**.





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● **RELEASE AGENT**

RELEASE AGENT

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in PU furniture business

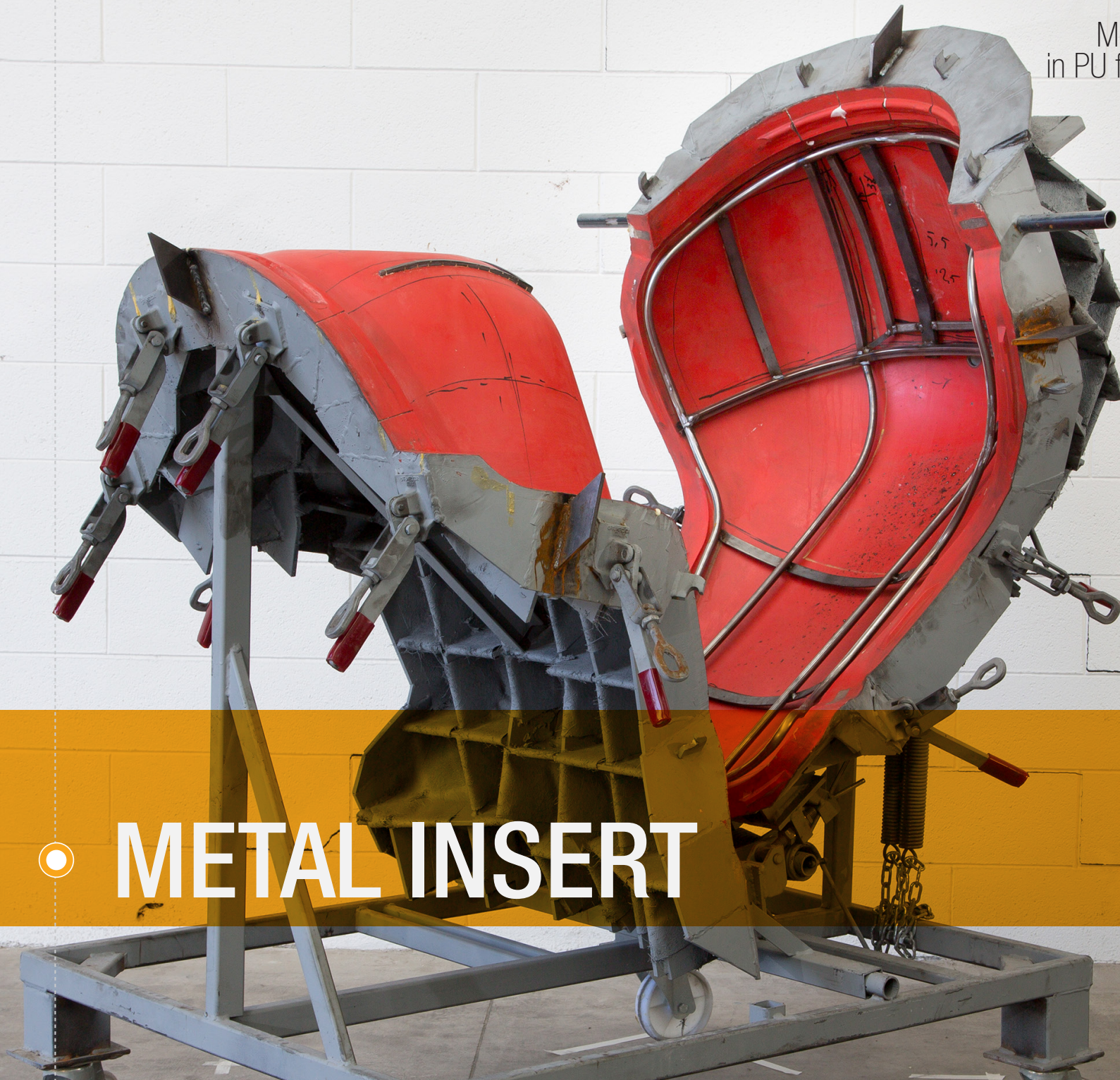
SPRAYING SPECIAL MIX OF SOLVENTS
for optimal release of final piece



- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS

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in PU furniture business

● METAL INSERT



METAL INSERT: STEPS

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STEPS OF THE PRODUCTION

from the metal structure to the finished products



- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS

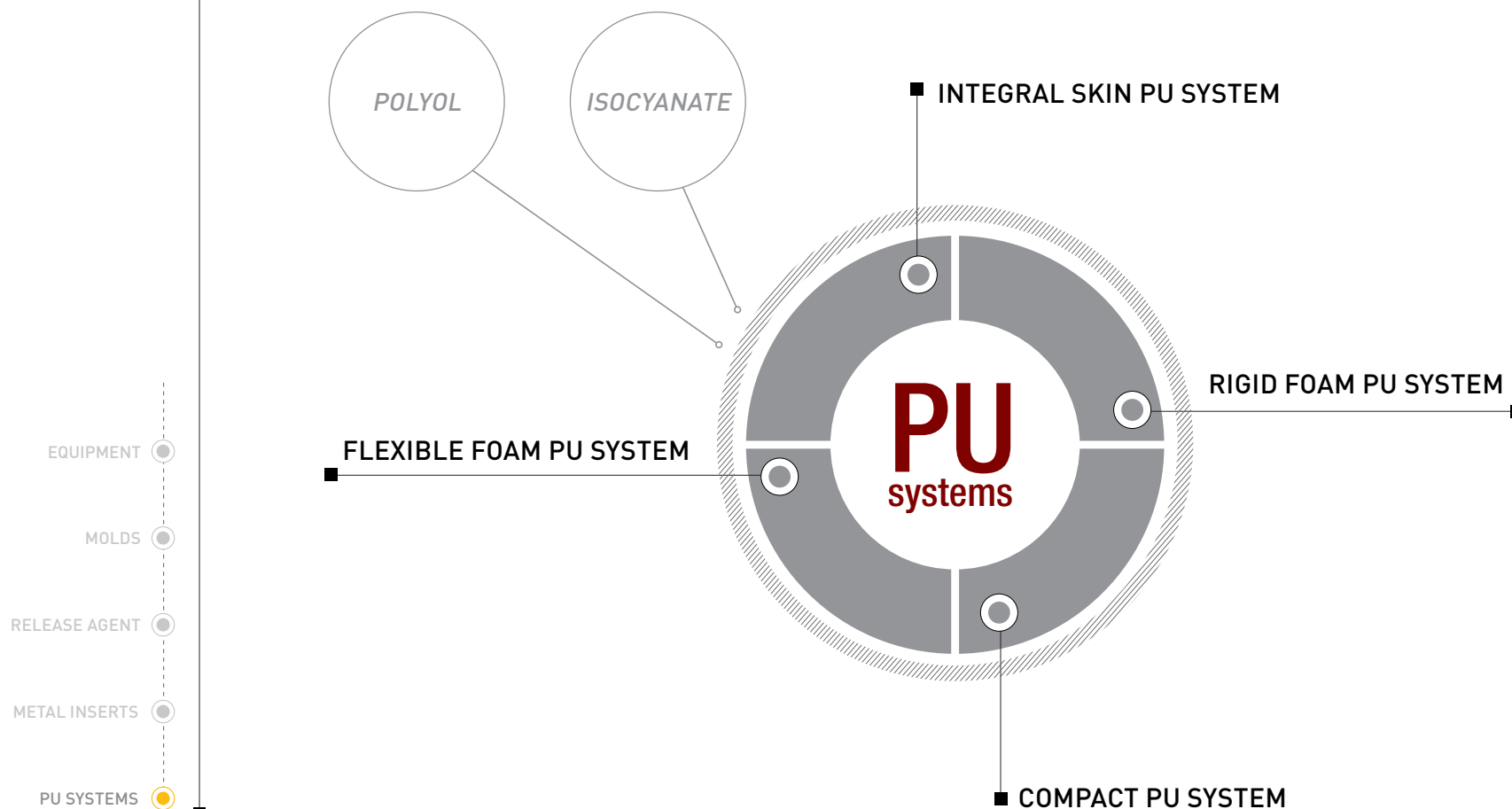
Molded technology
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● PU SYSTEMS

PU SYSTEMS

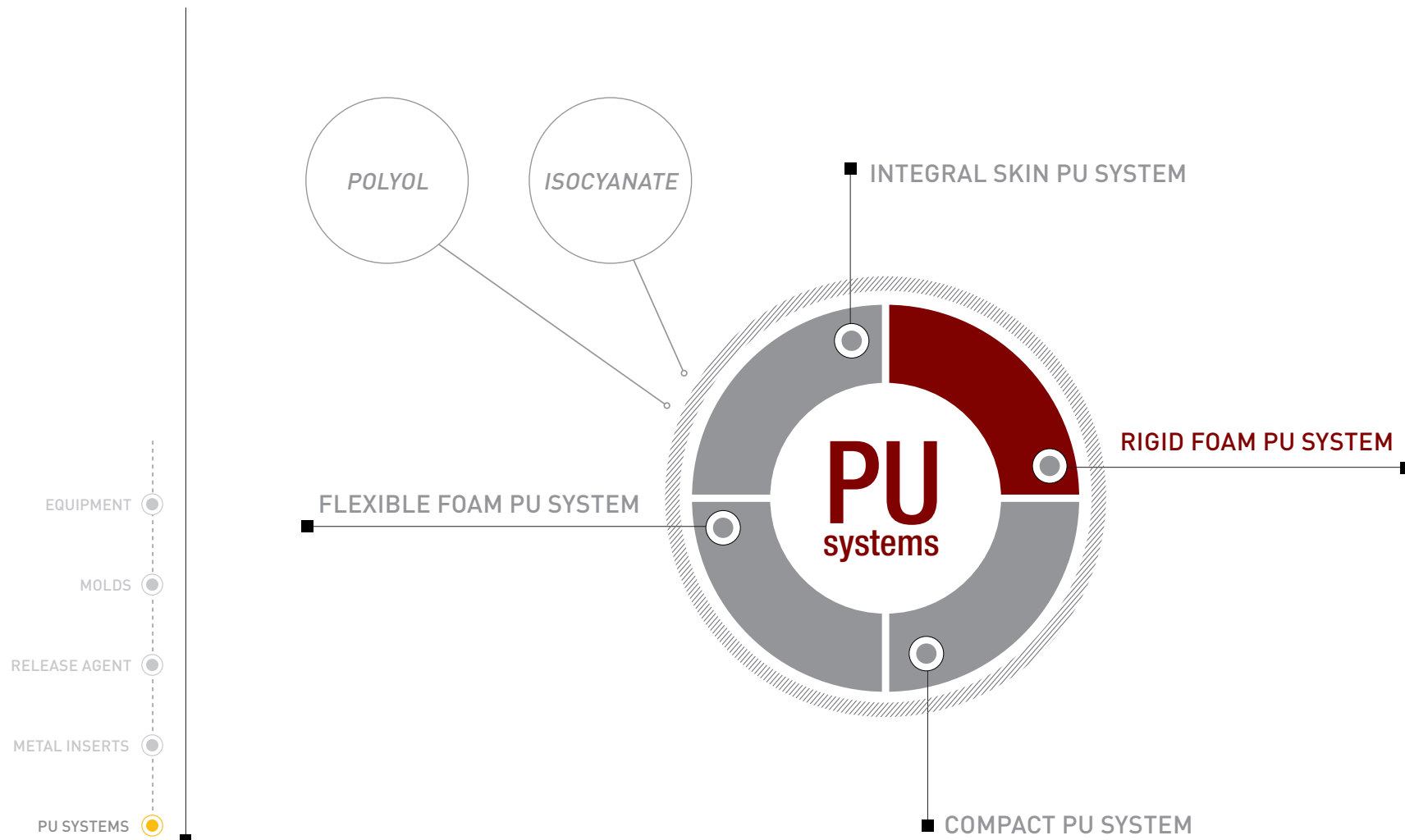
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PU SYSTEMS is split in
4 SEGMENTS OF PRODUCTION



PU SYSTEMS #1

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RIGID FOAM

Molded technology
in PU furniture business

TRADITIONAL PROCESS



EQUIPMENT

MOLDS

RELEASE AGENT

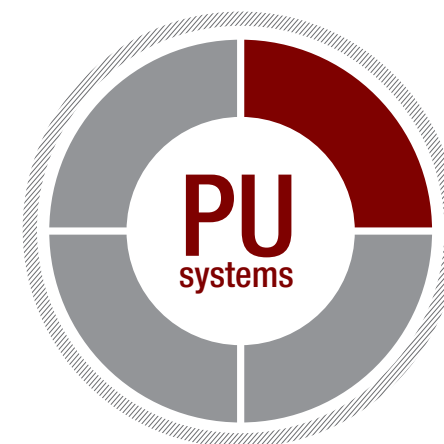
METAL INSERTS

PU SYSTEMS

INMOLD PROCESS

discover

POZZI AROSIO
SOLUTION



RIGID FOAM

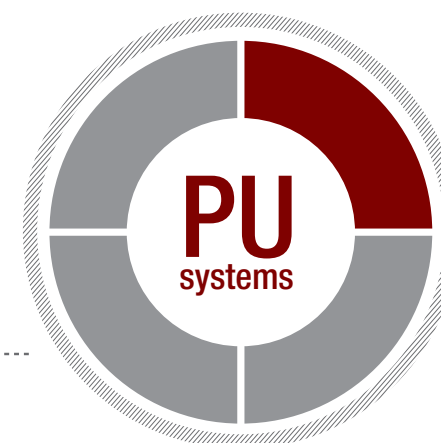
SOME DETAILS

Molded technology
in PU furniture business

PROPERTIES:

- Toughness comparable to wood
- Stability
- Tailored elasticity
- Good adherence to surface varnish
- Wood grain effect via the mold
- Easy processability of the sole surface structure
- Excellent resistance to nails and screws

Equipment	High and Low pressure
Molds	Epoxy Resin and Silicon Rubber
Release agent	Spray, Wax
Insert	Wood, Metal



RIGID FOAM PRODUCTION

Molded technology
in PU furniture business

A special mix of solvents especially produced to allow the optimal release of final piece.

Polyurethane is pured into the mold with SAIP equipment.

The correct choice of Polyurethane System will generate the better result and the optimal characteristics.

- EQUIPMENT ●
- MOLDS ●
- RELEASE AGENT ●
- METAL INSERTS ●
- PU SYSTEMS ●



RIGID FOAM

FINAL PRODUCTS

Molded technology
in PU furniture business

- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS



RIGID FOAM

FINAL PRODUCTS

Molded technology
in PU furniture business

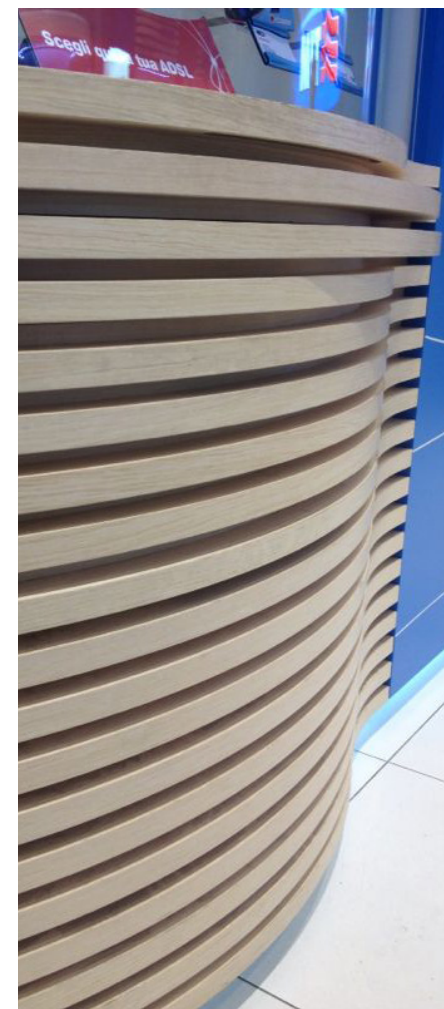
- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS



RIGID FOAM

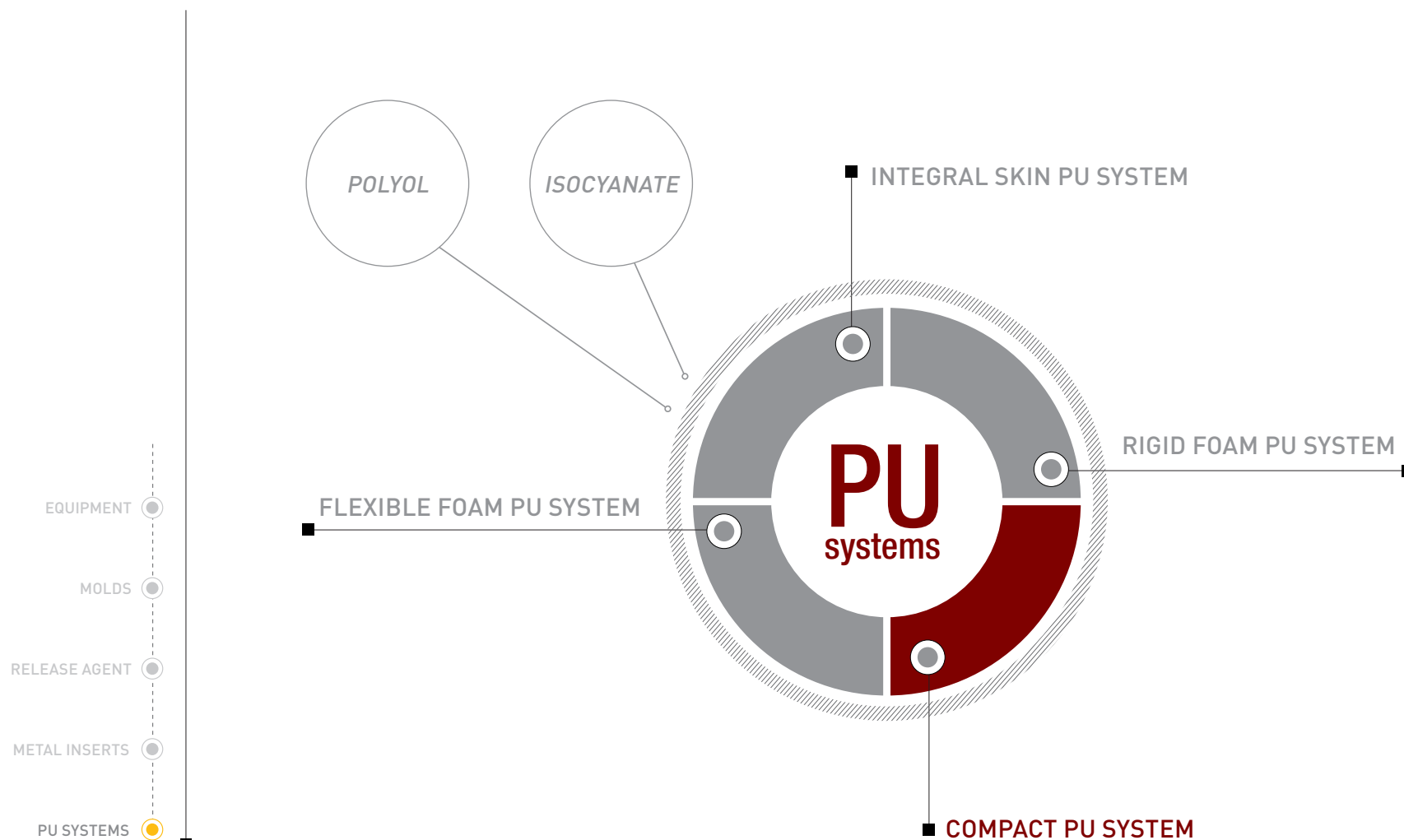
FINAL PRODUCTS

Molded technology
in PU furniture business



PU SYSTEMS #2

Molded technology
in PU furniture business



COMPACT

Molded technology
in PU furniture business

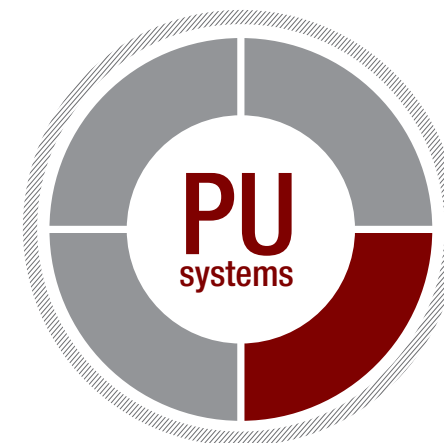
TRADITIONAL PROCESS



- EQUIPMENT ☐
- MOLDS ☐
- RELEASE AGENT ☐
- METAL INSERTS ☐
- PU SYSTEMS ☒

INMOLD PROCESS

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POZZI AROSIO
SOLUTION
.....➔



COMPACT

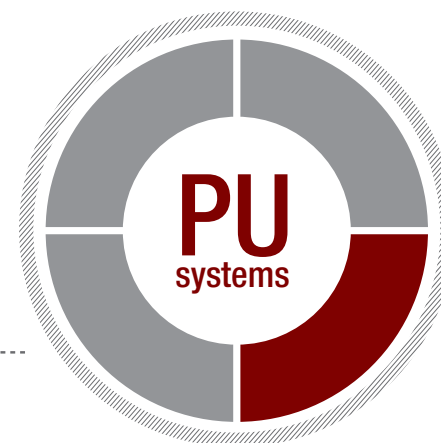
SOME DETAILS

Molded technology
in PU furniture business

PROPERTIES:

- Toughness comparable to wood
- Excellent surface
- High density between 900 and 1100 gr/lit
- Does not absorb humidity
- Complex shapes and thickness
- Can be overcoated
- Easy to manage

Equipment	High and Low pressure
Molds	Epoxy Resin and Silicon Rubber
Release agent	Spray, Wax
Insert	Wood, Metal



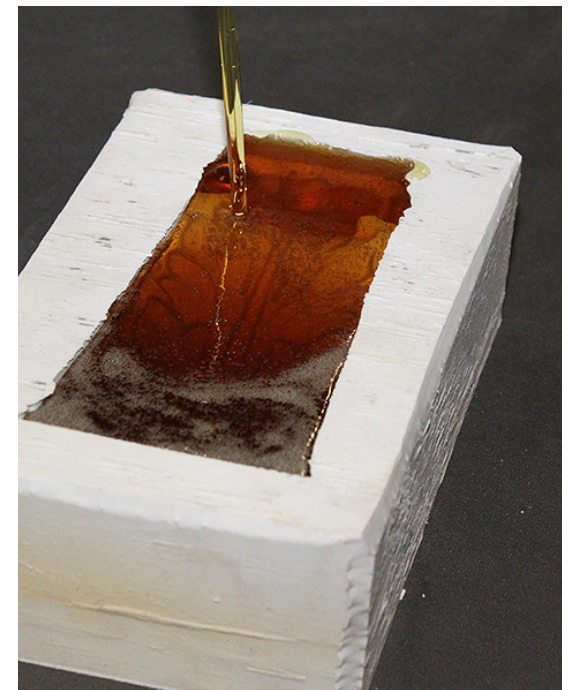
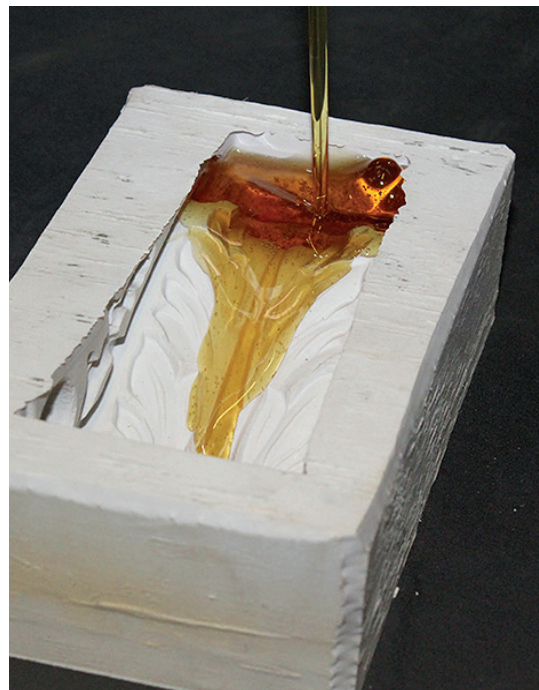
COMPACT PRODUCTION

Molded technology
in PU furniture business

Once defined the model, it is replayed in 24 hours with the silicon rubber.

Polyurethane system is pured into the mold.

Polyurethane system becomes hard and it takes the shape of the mold.



- EQUIPMENT ●
- MOLDS ●
- RELEASE AGENT ●
- METAL INSERTS ●
- PU SYSTEMS ●

COMPACT

FINAL PRODUCTS

Molded technology
in PU furniture business



- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS

COMPACT

FINAL PRODUCTS

Molded technology
in PU furniture business

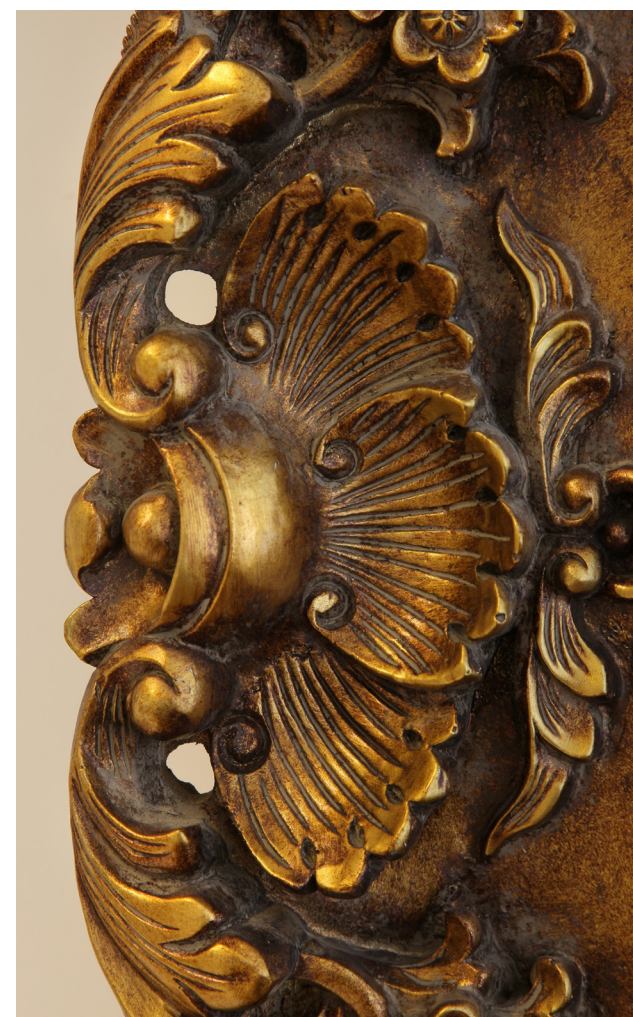


COMPACT

FINAL PRODUCTS

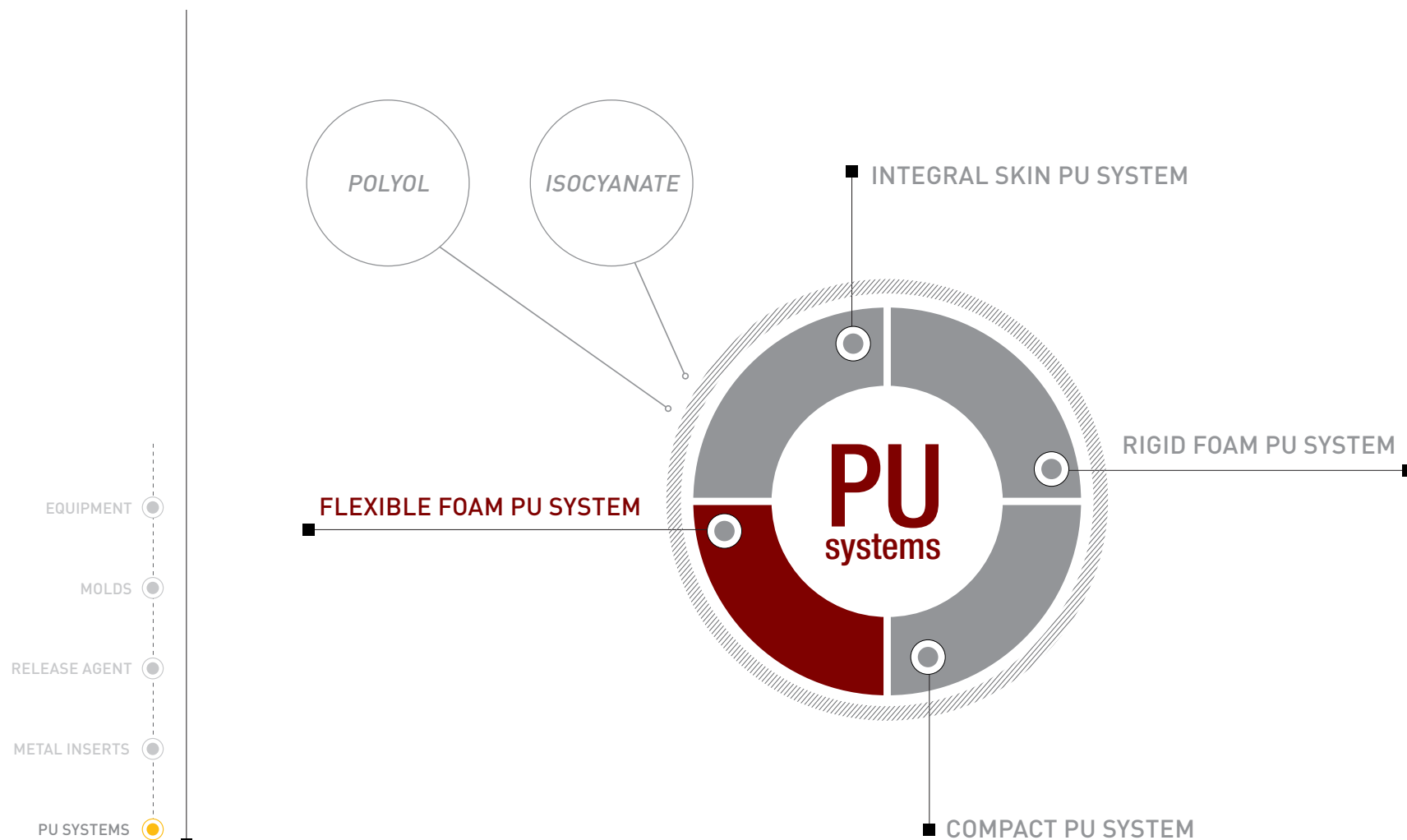
Molded technology
in PU furniture business

- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS



PU SYSTEMS #3

Molded technology
in PU furniture business



FLEXIBLE FOAM

Molded technology
in PU furniture business

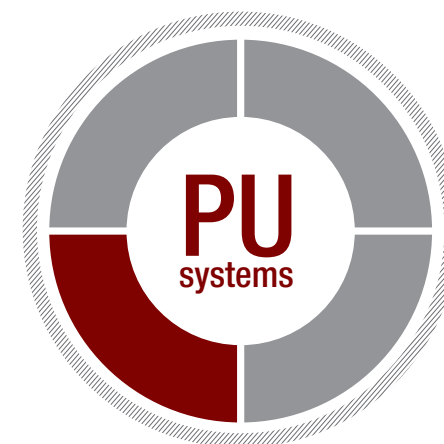
TRADITIONAL PROCESS



- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS

INMOLD PROCESS

discover
POZZI AROSIO
SOLUTION
.....➔



FLEXIBLE FOAM

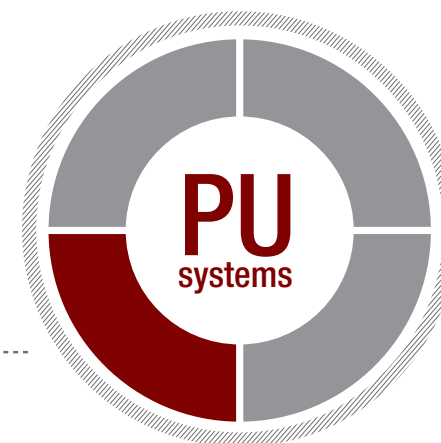
SOME DETAILS

Molded technology
in PU furniture business

PROPERTIES:

- Densities from 50 to 80 kg/m³
- Making the furniture more firm and used for long time
- The insert is incorporated inside the injected foam
- Smoothness and homogeneity
- Lightweight and resilient
- Every batch of product is absolutely much similar
- Can be used to obtain unique and elegant shapes
- Allows a great shape complexity in one shot
- Fast production advantages

Equipment	High and Low pressure
Molds	Metallic and Epoxy Resin
Release agent	Spray, Wax
Insert	Metal



FLEXIBLE FOAM PRODUCTION

Molded technology
in PU furniture business

A special mix of solvents especially produced to allow the optimal release of final piece.

Metal insert are fitting on the mold before to close it.

Polyurethane is pured into the mold with SAIP equipment.

The correct choice of Polyurethane System will generate the better result and the optimal characteristics.

EQUIPMENT

MOLDS

RELEASE AGENT

METAL INSERTS

PU SYSTEMS



FLEXIBLE FOAM

FINAL PRODUCTS

Molded technology
in PU furniture business

- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS



FLEXIBLE FOAM

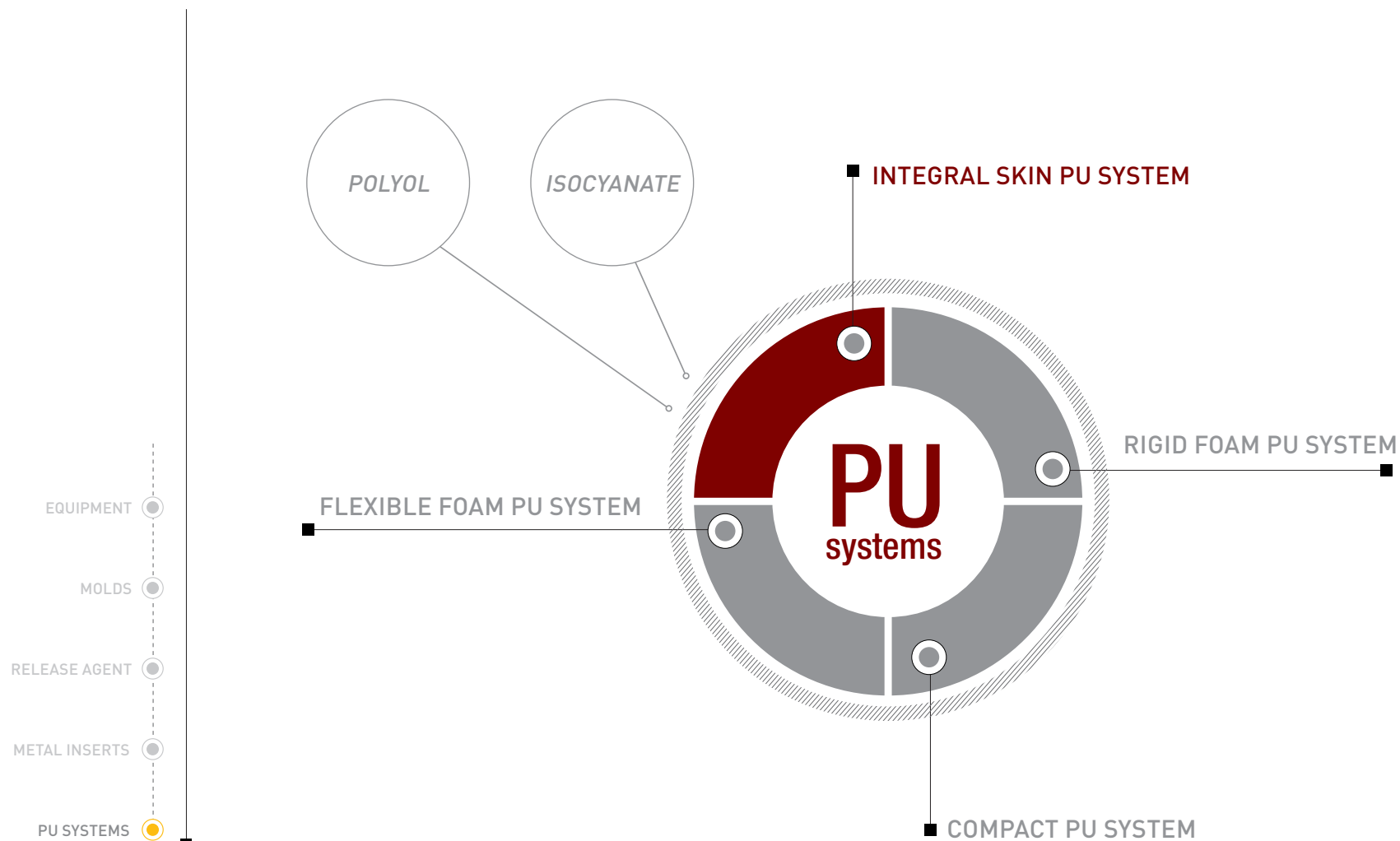
FINAL PRODUCTS

Molded technology
in PU furniture business



PU SYSTEMS #4

Molded technology
in PU furniture business



INTEGRAL SKIN

Molded technology
in PU furniture business

TRADITIONAL PROCESS



EQUIPMENT

MOLDS

RELEASE AGENT

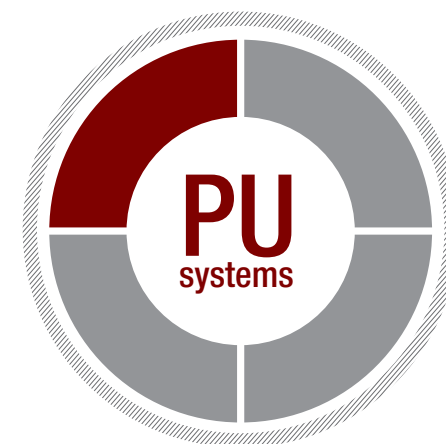
METAL INSERTS

PU SYSTEMS

INMOLD PROCESS

discover

POZZI AROSIO
SOLUTION



INTEGRAL SKIN

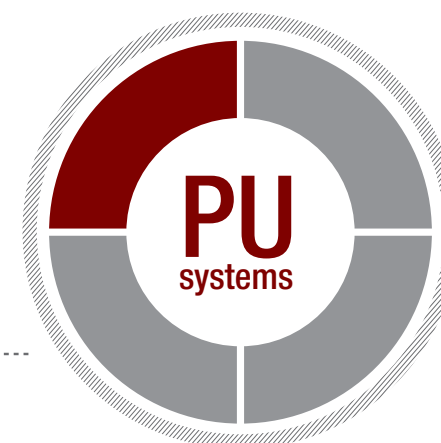
SOME DETAILS

Molded technology
in PU furniture business

PROPERTIES:

- Densities from 250 to 450 kg/m³
- Making the furniture more firm and used for long time
- The insert is incorporated inside the injected foam
- Smoothness and homogeneity
- Lightweight and resilient
- Can be used to obtain unique and elegant shapes
- Allows a great shape complexity in one shot

Equipment	Low pressure
Molds	Metallic and Epoxy Resin
Release agent	Spray, Wax
Insert	Metal



INTEGRAL SKIN PRODUCTION

Molded technology
in PU furniture business

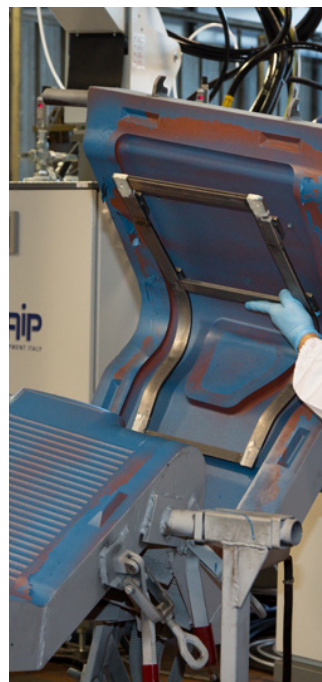
A special mix of solvents especially produced to allow the optimal release of final piece.



A special coating is sprayed on the mold.



Metal inserts are fitted on the mold before to close it.



Polyurethane is poured into the mold with SAIP equipment.



The correct choice of Polyurethane System will generate the better result and the optimal characteristics.

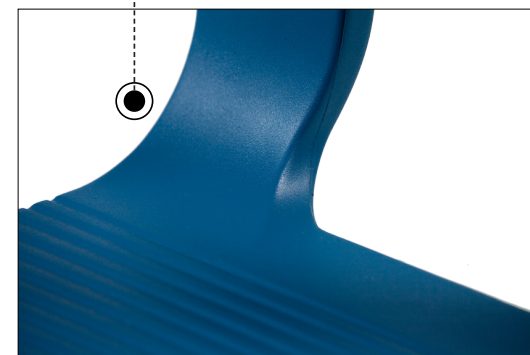
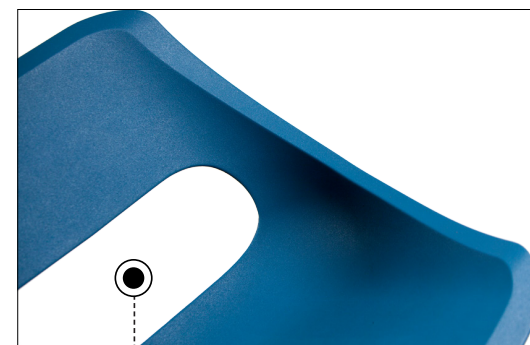


- EQUIPMENT ☐
- MOLDS ☐
- RELEASE AGENT ☐
- METAL INSERTS ☐
- PU SYSTEMS ☒

INTEGRAL SKIN

FINAL PRODUCTS

Molded technology
in PU furniture business



INTEGRAL SKIN

FINAL PRODUCTS

Molded technology
in PU furniture business

- EQUIPMENT
- MOLDS
- RELEASE AGENT
- METAL INSERTS
- PU SYSTEMS



INTEGRAL SKIN

FINAL PRODUCTS

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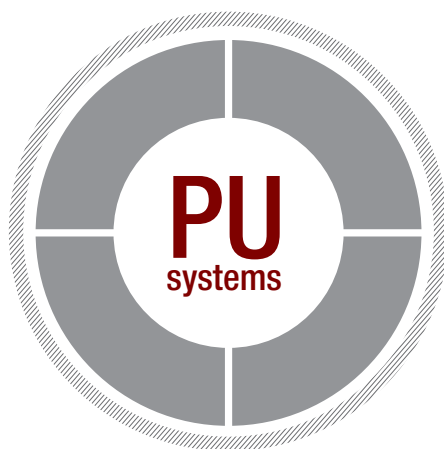
WHY POZZI AROSIO?

Molded technology
in PU furniture business

POZZI AROSIO
SOLUTION



it means
ADVANTAGES



ADVANTAGES

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PRODUCTION SCRAPS

ADVANTAGES

PRODUCTION SCRAPS

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POZZI AROSIO SOLUTION

.....➤ it allows to **REDUCE AND MINIMIZE**
any production scraps comparing to
the traditional process





ADVANTAGES

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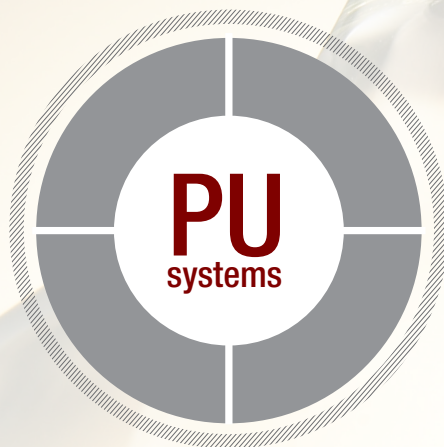
PRODUCTION TIME

ADVANTAGES

PRODUCTION TIME

Molded technology
in PU furniture business

POZZI AROSIO SOLUTION



Our processes allow **TO SAVE TIME
IN ANY PRODUCTION STEPS** without
any loss of quality and increasing
the amount of production.

presentation

DIP PRINT

POZZI INDUSTRIES
MADE IN ITALY

DIP PRINT CHARACTERISTICS

Molded technology
in PU furniture business

- Fully automated
- Entirely made in Italy
- System designed, engineered and manufactured by a dedicated team

■ DIP PRINT™ IS AIMED AT DECORATING COMPLEX SHAPED 3D OBJECTS.

DIP PRINT PROCESS

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in PU furniture business

SUPPORT

Polyurethane objects
ABS objects
Plastic objects
Metallic objects
Glass objects

TOP COATING

A transparent top
coat is applied
to protect the
printed surface.

THE PROCESS IS DEVELOPED IN FIVE STEPS:

1

FILM PRINTING

The pattern or
design is printed on
a water soluble film.

2

ACTIVATION

The film is specially
treated to activate
the inks.

3

TRANSFER

The film is floated
out onto the water
and the product
to be decorated is
pressed down into
the film to effect
the transfer.

4

FILM REMOVAL AND WASHING

Having fulfilled its
role as the medium
for the print transfer,
the film is washed
away.

5

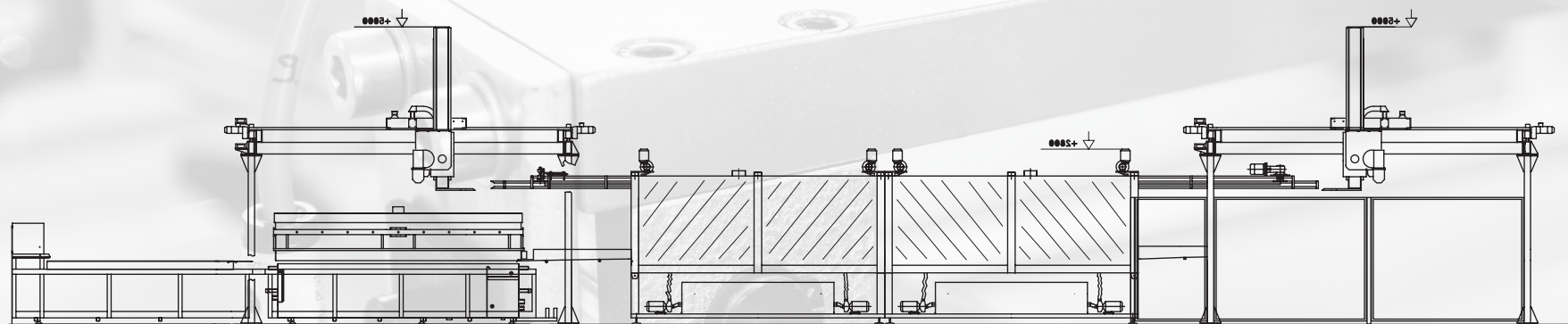
DRYING

Water which has
adhered to the
product (material)
during transfer
is dried off.

DIP PRINT

SYSTEM DESCRIPTION

Molded technology
in PU furniture business



■ THE SYSTEM

- The fully automated DIP PRINT system is operated by a computerised control system;
- The system is equipped with native and dedicated software which plunges the object into the tank without any manual intervention.
- One person only operating at the control console is sufficient to assist the entire system and productive process.

DIP PRINT

OUR TARGET

Molded technology
in PU furniture business



- DIP PRINT™ technology is really unique for printing quality in definition and rendering even for convoluted shapes allowing at the same time the maximum variety of substrates.
- DIP PRINT™ is the best option, the winning solution, especially in cases where significant production difficulties come along with top level finishing requirements.
- DIP PRINT™ is widely used in automotive, boat and aeroplane industry.
- DIP PRINT™ allows the use for outside decorations of cheaper, more suitable (e.g. fire resistant) or lighter materials, and consequently considerable savings in costs for raw materials, transport, handling.
- DIP PRINT™ decorated pieces show the best appearance you can imagine in every pattern you can imagine.

DIP PRINT™ IS THE WINNING TECHNOLOGY

DIP PRINT

THE ADVANTAGES

Molded technology
in PU furniture business

DIMENSIONS

- The dimensions of the immersion tank (3x1m) it is remarkable
- It make it possible to decorate:
 - Considerably long pieces
 - Considerably thick pieces
 - Considerably complex and convoluted shapes.

CONVOLUTED SHAPES

- There are no materials to which the high-resolution DIP PRINT technology cannot be applied.
- All COMPLEX SHAPES materials with paintable surfaces have the greatest benefit.
- Dip Print grants:
 - A very well-defined personality
 - A significant material metamorphosis
 - A strongly technological aspect
 - An increased aesthetic and artistic piece evolution

QUALITY OF FILM

- All textures quality is in High Definition (HD)
- The drawing on the film can also be transferred to objects with minimum corner radii and to undercuts
- The texture always finds its perfectly orderly fashion to transfer itself and to spread on the whole object without deforming!



DIP PRINT APPLICATIONS

Molded technology
in PU furniture business

AVIATION

INDUSTRIAL DESIGN

SPORT

INTERIOR FURNITURE

MARINE

AUTOMOTIVE

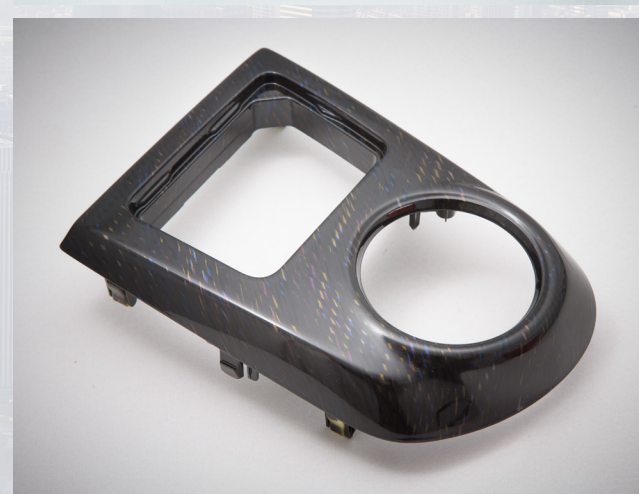
DIP PRINT APPLICATIONS

Molded technology
in PU furniture business



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ADVANCED
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WHAT ELSE?

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CERTIFICATIONS



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