



ROTOMACHINERY GROUP: 360° ROTOMOULDING



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WHO WE ARE



- ☛ WORLDWIDE MACHINERY SUPPLIER SINCE 1979;
- ☛ 2 FACILITIES IN ITALY AND CANADA (TOTAL 6000 SQUARE METERS);
- ☛ 150 PEOPLE (EMPLOYEES AND STABLE SUB-CONTRACTORS);
- ☛ 100% ROTOMOULDING: ENGINEERING, DESIGN, FABRICATION, TEST AND INSTALLATION OF MACHINERY, ACCESSORIES, MOULDS AND MATERIAL PREPARATION/HANDLING SYSTEM;
- ☛ MORE THAN 400 MACHINES OPERATING IN 6 CONTINENTS; EXCELLENT REPUTATION IN THE MARKET FOR SUPPLY OF STATE-OF-THE-ART MACHINERY APPRECIATED FOR RELIABILITY, LOW CONSUMPTION, COST-EFFECTIVE MANAGEMENT;
- ☛ HOLDING 3 ITALIAN PATENTS FOR ROTOMOULDING MACHINERY AND CONTROL OF THE PROCESS.



SHUTTLE



INDEPENDENT ARMS



ROCKING OVENS



CARROUSEL

360° PRODUCT LINE



MOULDS



LAB-MACHINE



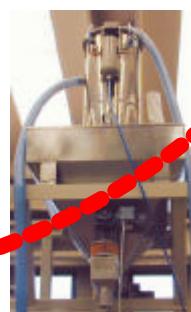
BOX OVENS

PULVERIZERS



CUSTOM

DOSING



INDEPENDENT CONVEYORS: PRM-C SERIES

State of the art engineering for a product which is a benchmark for the entire sector to which it belongs.



Main features:

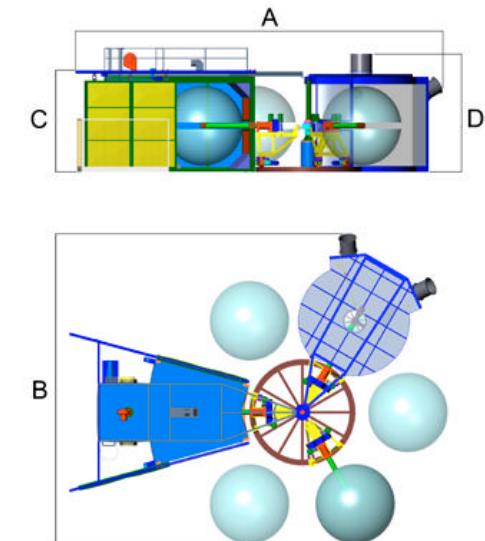
- 6 flexible stations with 1, 2, 3 and 4 arms;
- Thermically insulated moulding chamber in sturdy steel;
- Special steel combustion chamber;
- Cooling chamber in stainless steel;
- Interchangeable arms in one-block;
- Possibility to use up to 3 airways;
- Independent arm-holder rotation driven by gearmotors;
- Direct primary and secondary rotation by geared-wheels.

Most common sizes:

PRM	A (mm.)	B (mm.)	C (mm.)	D (mm.)	Load kg.	Swing
1900	9250	8400	2400	3100	800	500
2600	12300	10950	3300	3800	1300	800
3000	14300	12300	3800	4600	1600	900
3500	16450	14300	4000	5000	1950	1200
4000	18050	15450	4500	5550	2300	1400
5000	20500	17400	5550	6650	2550	1650

Applications:

- High volume output (especially with double cooling stations);
- Different thicknesses;



TOTAL CONTROL SYSTEM

Flexible, modular and continuous proprietary machinery management software.



Main features:

- Profibus architecture for hi-speed connecting devices;
- Touchscreen industrial interface;
- Removable standard compact flash memory to load programs and save archives/recipes;
- Incorporated TCP/IP network card for saving data to LAN;
- Setting and displaying cycle parameters;
- Temperature curves display;
- Intelligent alarm management (troubleshooting);
- Direct management of arm control by inverters without opening frames;
- Setting of 3 cooking temperatures;
- Setting of two different speeds for primary and secondary rotation in the same phases;
- Zero search and moulding position indexing;
- Preset for automatic management of temperature cycle functions.

CAROUSEL PRM-SERIES

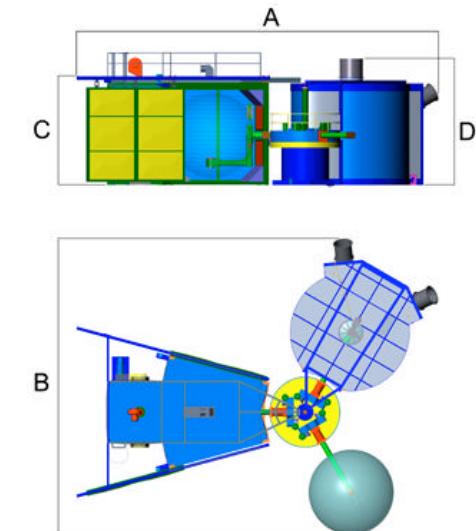
A plant with a central turret: maximum reliability and simplicity in use.



Main features:

- Configuration in 3,4,5 stations;
- Moulding chamber in sturdy steel thermically insulated;
- Special steel combustion chamber;
- Cooling chamber in stainless steel;
- Interchangeable arms in one-block;
- Possibility to use up to 3 airways;
- Central turret rotation;
- Direct primary and secondary rotation by geared-wheels;
- Touch screen interface for management of the cycle.

PRM	A (mm.)	B (mm.)	C (mm.)	D (mm.)	Capacity	Swing
1850	8000	7100	2400	2850	800	500
2300	9850	8600	2900	3450	1100	600
2600	11000	9700	3100	3850	1300	800
2800	12500	10300	3300	4050	1450	850
3000	12700	10800	3700	4350	1600	900
3200	13100	11600	3850	4750	1700	1000
3500	15500	14000	4200	5000	1950	1200
3700	16250	14400	4350	5200	2050	1280
4000	18050	15450	4500	5550	2300	1400



Applications:

- High volume output for products with the similar cycle time;
- Easy products (fast loading/unloading phase).

SHUTTLE MACHINE S-SERIES

The most economical way of exploiting all the advantages offered by this technology.

- 2 – 3 stations: an oven and 1 or 2 cooling and loading/unloading stations;
- Open cooling stations with ground level fans;
- High capacity loading carriages;
- Interchangeable straight or drop operating arms;
- Multiple indexing of the arm's position at the end of the cooling phase to facilitate loading/unloading operations;
- Direct rotation movements using robust gear mechanisms, driven by inverter controlled AC motors, with settings for rotation speed, acceleration/deceleration ramps;
- Possibility of using up to 4 airways;
- Burner powered with different fuels;
- Oven doors' mounted on carriages;
- PLC control system;

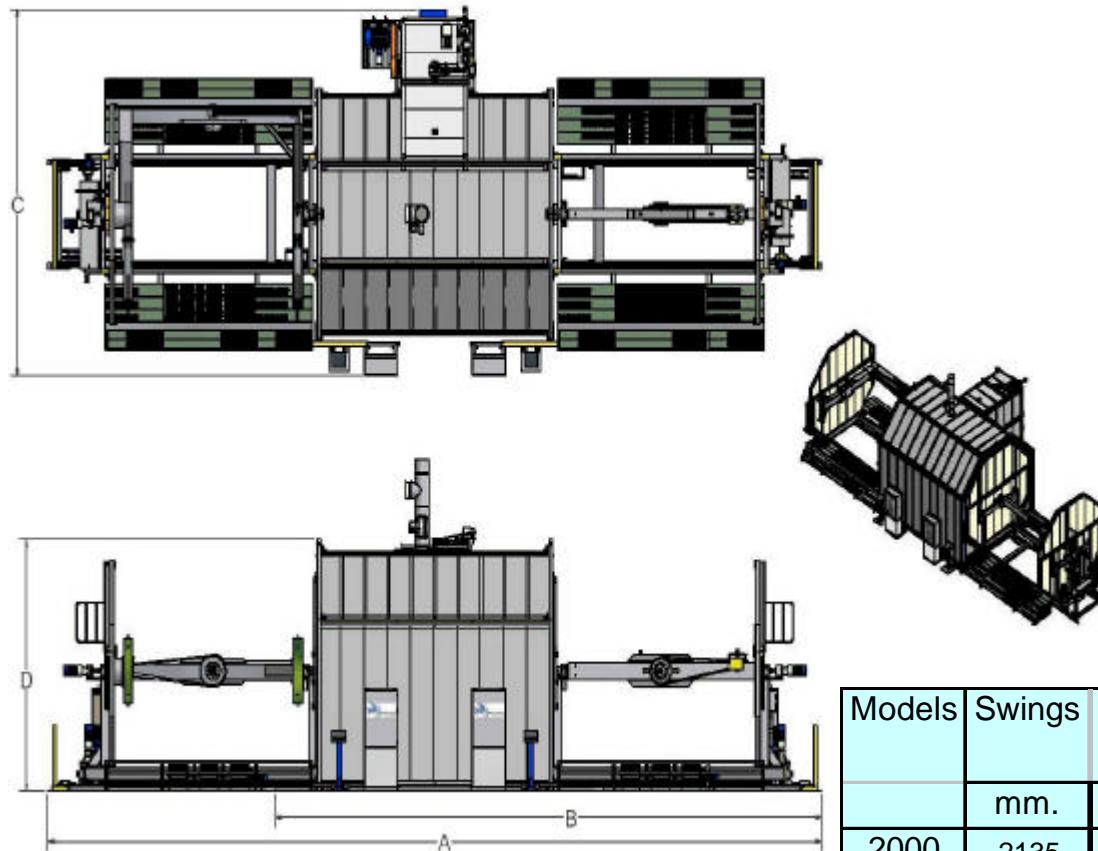


Applications:

- Big size products;
- Slow process.

SHUTTLE MACHINE S-SERIES

ROTOMACHINERY™
ROTATIONAL MOULDING TECHNOLOGY **GROUP**
POLIVINL БОГДАН ROTOMACHINERY
STP АТД ROTOMACHINERY



Models	Swings		A		B		C		D		Top of combustion chamber	
	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.
2000	2135	84	11341	446	7645	301	4916	193	2667	105	3637	143
2500	2770	109	13233	521	8915	351	5385	212	3245	128	4215	166
3000	3050	120	14783	582	9957	392	5664	223	3683	145	4653	183
3500	3555	140	17348	683	11506	453	6350	250	4191	165	5161	203
4000	4065	160	17767	700	12548	494	7009	276	4699	185	5669	223
4500	4572	180	19355	762	13335	525	7500	295	5250	207	6220	245
5000	5080	200	20714	816	14504	571	8080	318	5826	230	6796	268
5500	5588	220	22073	869	15672	617	8661	341	6401	252	7371	290

ROCK & ROLL OVENS (H-SERIES)

Hi-tech machinery for high productivity of large and very large parts.

Dimensions:

- HRM 1800: 2,5x5,5 mt.;
- HRM 1850: 3,8x5,5 mt.;
- HRM 2400: 2,5x7,3 mt.;
- HRM 2450: 3,8x7,3 mt.;
- HRM 24/20: 4,8x7,3 mt.;
- HRM 24/230: 5,8x7,3 mt..

Main features:

- The only one with 3 station;
- Two independent mould-holding carriages alternating in cooking and cooling phase;
- 3 to 5 independent cooking zones;
- Loading/unloading operations on cooling stations at ground level;
- Up to 4 airways for each arm;
- Reduced space occupied.

Applications:

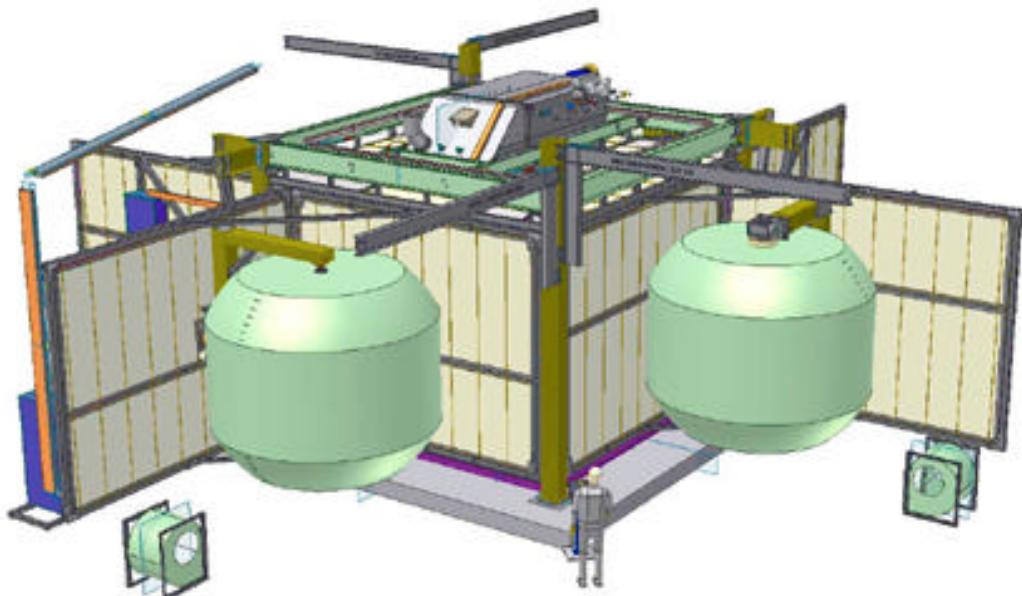
- Large containers;
- Septic tanks, canoe, kayak, boats.



TRM SERIES.....100% FLEXIBILITY



Total independence of each arm.



Main features:

- Central oven and 4 mould-holder arms passing from cooking to cooling independently;
- Two consecutive moulding cycles can be performed on the same arm while moulds or even arm are being replaced on other carriages;
- Each arm has its own cooling station: totally freedom in cycle-time;
- Oven doors' mounted on carriages;
- Direct rotation with robust gear mechanism.

Applications:

- Productions of small different series;
- Frequent change of the moulds;
- Set-up of the process without stopping normal production.

BOX OVENS PRM 900 LINE

A small machine for high volume of small PVC parts.



Main features:

- Single arm with gear movement equipped with two mould holder supports;
- Completely automatic cooking cycles;
- Cooling system made up of stainless steel tank with mould holder support for immersion in water.

Applications:

- Balls, dolls, toys, fenders, ecc...

LAB MACHINES



Rotomachinery Group Technology for testing process, materials, moulds.



Main features:

- Reproducing all the functions and characteristics of rotational moulding machine in scale;
- Single cooking/cooling station;
- Up to 3 airways;
- Special software of management;
- Temperature auto detection system (real-time or post-phase).



MATERIAL HANDLING: PULVERIZING, CONVEYING AN DOSING THE MATERIAL

CONVEYING/MIXING

PULVERIZING



DOSING



LOADING





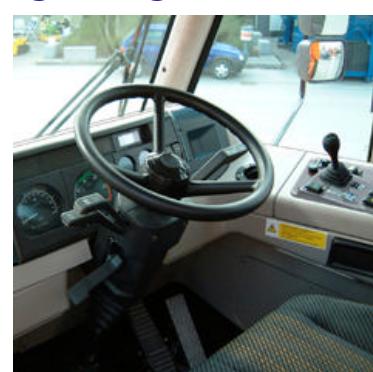
TURN-KEY PROJECTS

Many customers rely on us for full-lines (machines, moulds, pulverizers, dosing unit).

We are involved in the latest development of the technology all over the world.



MANHOLES



TECHNICAL PARTS



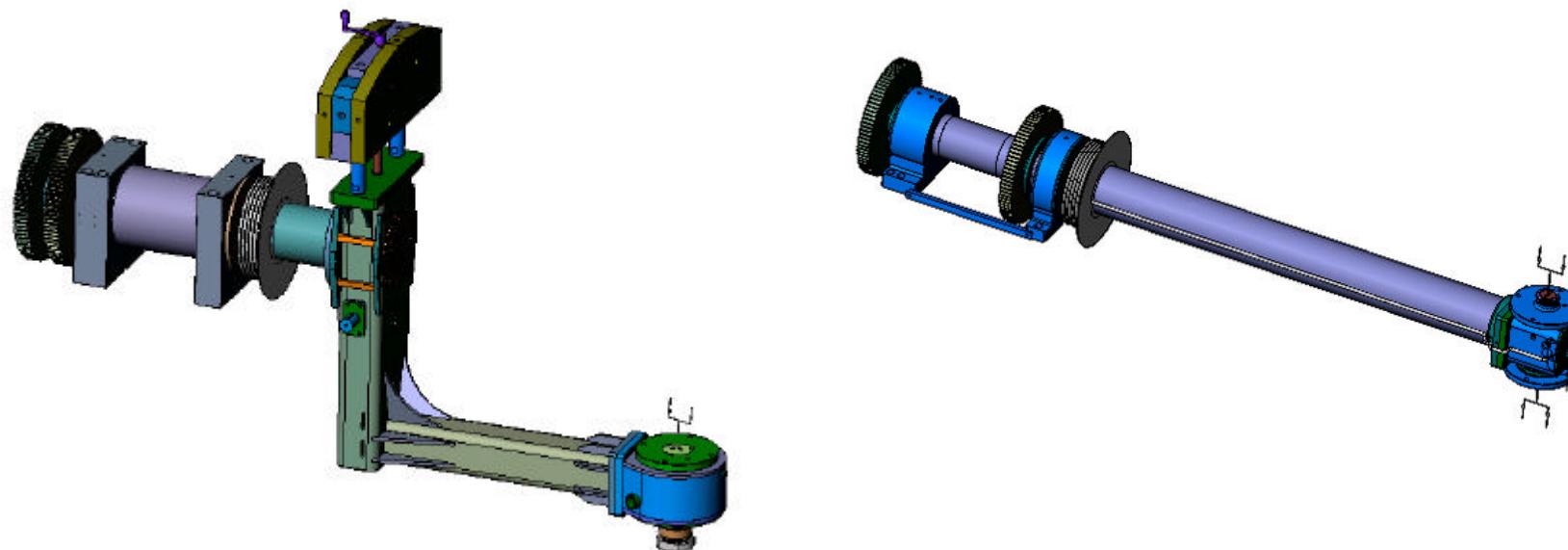
**FLOWER
POTS**



LATEST TECHNOLOGICAL INNOVATIONS

INTEL ARM (patented)

The first “intelligent arm”. Intel arm is a system designed for reading the moulding and cooling temperatures data inside the mould in real time. Using temperature sensors connected directly to the command and control system on the machines, it is possible to have visual graphs of the temperature of the air inside the mould and of the material.



LATEST TECHNOLOGICAL INNOVATIONS

ROTATIONAL MOULDING PLANT

The benefits of this system get the best result with a machine that is above all flexible (in fact the cycle times change) and that can carry out immediately the instructions received.

The results shown in this presentation have been achieved on our 3000 mm. swing diameter lab-plant, equipped with 3 independent carriages cooling chamber with doors, modulating burner and possible use of atomized water.

This plant is managed by our software built in 'profibus' hardware architecture which ensures high speed data transmission and management.





QUALITY CONCERNS

HIGH SAFETY FACTORS FOR ENGINEERING PARTS AND COMPONENTS



**DROP ARM WITH EASY ADJUSTABLE
COUNTERWEIGHT THROUGH ARCHIMEDEAN SCREW**



QUALITY CONCERNS

HIGH QUALITY OF PARTS



CENTRAL TURRET WITH
ADDITIONAL ARM FIXING



STAINLESS STEEL COOLING CHAMBER



QUALITY CONCERNS

- ☛ TOP QUALITY ELECTRICAL, ELECTRONIC AND MECHANICAL COMPONENTS;
- ☛ SOFTWARE IN LOCAL LANGUAGES;
- ☛ PLANT FULLY ASSEMBLED AND TESTED WITH CUSTOMERS IN OUR FACILITIES BEFORE SHIPPING;
- ☛ AFTER-SALES SERVICE, SPAREPARTS AVAILABILITY, ASSISTANCE AND CONSULTANCY AT THE HIGHEST STANDARD FOR ACCURACY AND DELIVERY.



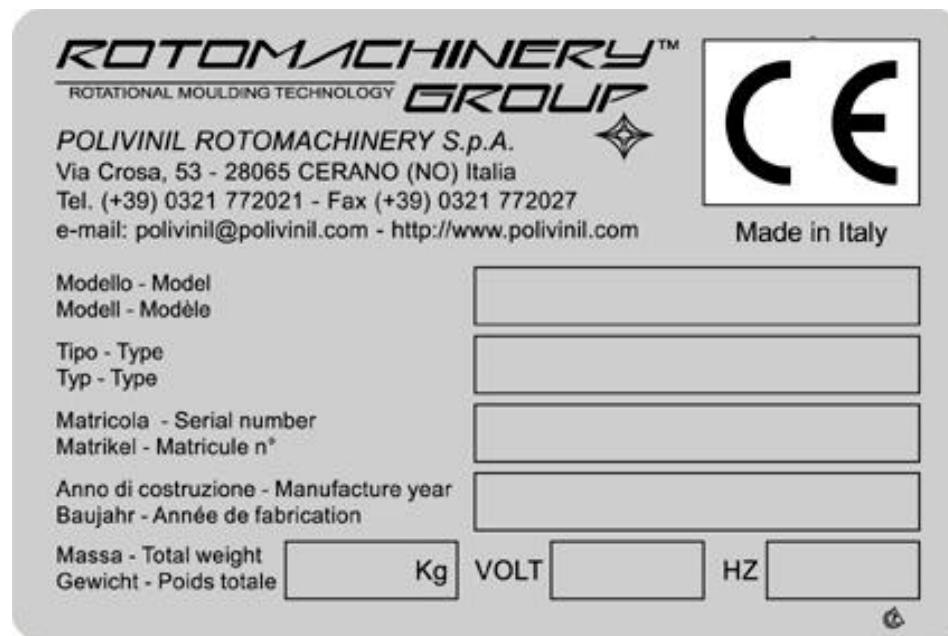
ENERGY CONCERNS

- ☛ New burner technology with optimal combustion;
- ☛ Fully insulated oven (the external surface is 50/55°C below the front doors)



AUTOMATIC ARM OVEN SHUTTERS

HEALTH & SAFETY CONCERNS



CE approval

- ☛ Safety protection on ladders, roof and where maintenance is required (fumes exhausting, burner, ecc);
- ☛ Light beam on critical areas as oven, cooling, ecc...



THANKS FOR YOUR ATTENTION



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