



## ENGINEERED TO EXCEL, BUILT TO LAST

Powered by breakthrough innovations like our multiple mix head and multiple component premix technology, the GMA brand of machinery and plants are used by some of the world's largest OEM companies supporting many of the largest automotive groups and appliance brands around the world. We are often told our GMA brand of machines have been built to last and our service records prove it. We started out almost twenty years ago to do (what was then) the impossible - build a line of polyurethane processing machines that would incorporate breakthrough concepts of self-cleaning, multi mix heads and multiple components premix system with the lowest service time. We did it and called them Good Machine Always or GMA as its now popularly known.

Today, reliability and adaptability are the hallmarks of each machine bearing the badge of our GMA brand. Built to exact standards and engineered to help you win.

GMA is wholly-owned and its products are developed by Rim Polymers, the preferred global partner for polyurethane processing solutions.



#### PROPRIETARY BREAKTHROUGH TECHNOLOGIES BUILT-IN

GMA machines are developed by Rim Polymers, the global polyurethane solutions specialist for over 30 years. Rim Polymers shared a rich history of successes in the polyurethane industry with an Italian industiral group for 20 years in the Asian region. Coming into its own, since year 2000, Rim Polymers developed GMA machinery and pioneered breakthroughs like multi-stream pre-mixing technology and much-improved, self-cleaning mixing heads. These leading technologies are engineered into our GMA machines.

Alongside the deployment of high quality parts and components, each GMA machine is an unbeatable combination of build excellence and leading-edge technology. Each engineered to win.

#### **OUR LIST OF BLUE-CHIP BRANDS USING GMA MACHINES:**







































# **AUTOMOTIVE** APPLICATIONS AND MACHINERY (ARMREST, CARSEAT, HEADREST)



#### **ARMREST**

Rim Polymers is able to supply a total solution for making arm-rest with a turn-table system integrated with either manually operated or automatic robotic injection.

#### **CARSEAT**

A key interior part of a car, Rim Polymers has supplied many turnkey seat lines to most of the major car OEMs today. We provide total solution for making different life of the seat to ensure a most luxurious and comfortable experience.

#### **HEADREST**

Rim Polymers has supplied many turnkey foaming lines for one of the largest headrest OEM manufacturers for BMW, General Motors and Volkswagen. The quality and consistency of a high-end head-rest is extremely important, therefore, the whole plant has over 32 lines from us and they are still expanding rapidly.



GMA *Headrest* Turntable Plant

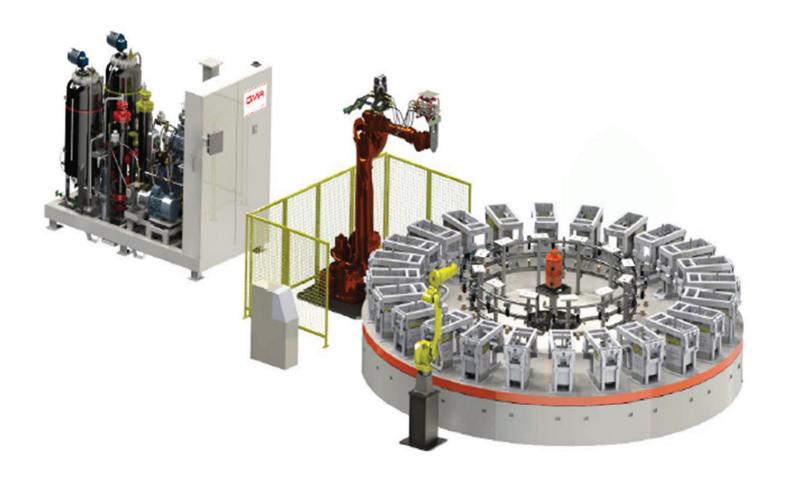


GMA Carseat Carousel Plant



GMA Armrest Turntable Plant

# **AUTOMOTIVE** APPLICATIONS AND MACHINERY (DASHBOARD, STEERING WHEEL, ENGINE COVER)



### **Turntable Standard**

Models: T4, T6 and T8 using German High Precision Electric Drive System





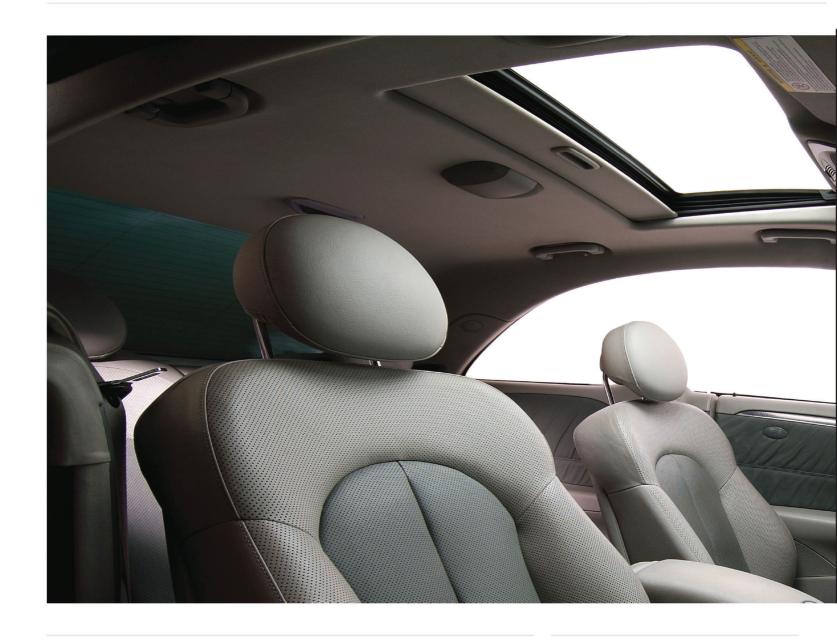


**GMA Electrical** Mould Carrier

GMA Steering Wheel Mould Carrier

**GMA Engine** Cover Plant

# **AUTOMOTIVE** APPLICATIONS AND MACHINERY (CARPET UNDERLAY, GLASS ENCAPSULATION, SUNSHADE)









Major Market share in Car Carpet Underlays Foaming Plants (for High-end car that include renowned brands like Volkswagen, GM Caldillac, BMW & Mercedes Benz) in Asia, particularly in South Africa, South Korea. China & U.S.A.



#### **CARPET UNDERLAY**

Carpet underlay is one of the most important interior part of a car as its level of insulation determines the degree of opulence and lavishness of a car model.

Rim Polymers has supplied many turnkey plant solutions to one of the top 5 automotive interior parts OEM, with more than 13 plants alone in the last 3 years.

### GLASS ENCAPSULATION AND SUNSHADE

Rim Polymers has successfully developed solutions with key chemical partners to supply for this niche application which involves very precise and delicate handling and foaming process.



Glass Encapsulation Press



Rim Polymers supplied new plant for German - China JV to produce automotive *Sunshade* system.

## **DISCONTINUOUS PU SANDWICH PANEL PLANT**



Wide range of presses, such as 2+0 hydraulic press, 2+2 hydraulic press, 3 daylight press and up to a maximum of 6 daylight press with scissors lift table. 2+2 system is popular for its optimum production efficiency.





Multiple Daylight Press (Air Con Panel). Model: 3/4/5/6 Daylight Press

2+2 Discontinuous 12.5m Press

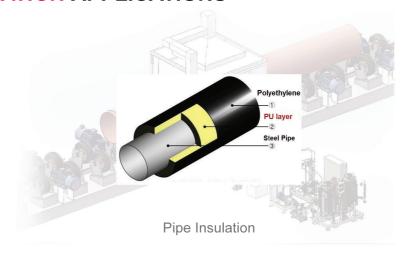
## FOR SANDWICH PANEL APPLICATION



## FOR PIPE & COOLER BOX INSULATION APPLICATIONS









Cooler Box Insulation

## **CONTINUOUS PU SANDWICH PANEL PLANT**



Rim Polymers is able to supply Turnkey Continuous PU Sandwich Panel Plant for building, roofing, and cold storage applications. This includes metal roll-forming, PU foaming machine, press, cutter, storage tanks, etc.



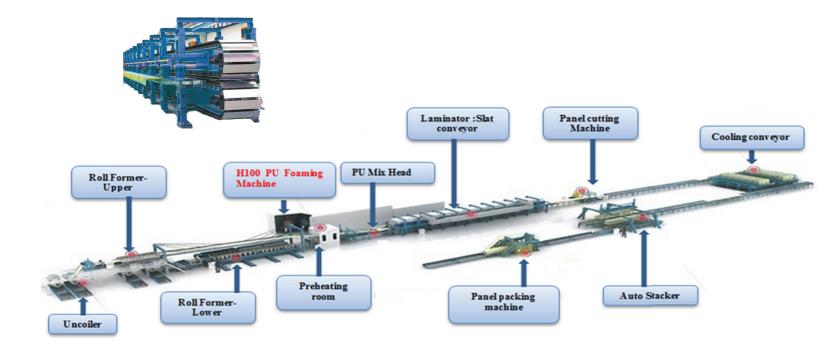




High Pressure H40/60

Catalyst Unit

CX-4C



## MADE TO MEASURE SOLUTIONS FOR OPTIMUM PRODUCTIVITY AND END PRODUCT PERFORMANCE

A leading supplier of polyurethane machinery and PU automotive foaming plants for PU Interior/Exterior parts manufacturing. Our turnkey solution for refrigerator plant includes patented blowing agent premix unit and material storage system. Also turnkey Continuous PU Sandwich Panel Plant for building, roofing, and cold room applications. This includes metal roll-foaming, PU foaming machine, press, cutter, storage tanks, etc.

Smart Ind. 4.0 PU High Pressure Foaming Machine



#### FOR IIOT / INDUSTRY 4.0

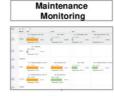
Our machine have the option to comply to the Industry4.0 platform for better monitoring performance analysis, improved productivity and cost-benefit assessment.

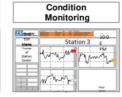
















## FOR REFRIGERATORS AND FREEZERS PRODUCTION

### CYCLOPENTANE PLANT



A typical refrigerator plant consists of dry equipment that are employed in both cabinet and door plants. A cabinet plant requires a 6 to 8 jigs and a door drum of 6 to 8 stations.

The wet equipment, comprising of high pressure foaming machines, material storage tanks and premix systems, are essential for refrigerators production.

Our turnkey solution for refrigerator plant includes Automatic GAS Alarm safety monitoring, double ventilators and ducting system.



Refrigerator Cabinet Foaming Plant



Refrigerator Door Foaming Plant

## PATENTED HIGH PRESSURE POLYOL PREMIX

## WITH MULTIPLE BLOWING AGENTS SYSTEM



Patented C5 Premix Model PX-4C



Color Dosing System (CDS)



Mould Heating Unit



Special Pneumatic Circulation Pump



# HIGH PRESSURE FOAMING MACHINE MODELS: *H6, H10, H20, H40, H60, H100, H200 & H300*

## 2 COMPONENTS (ISO & POLYOL) RIGID & FLEXIBLE FOAM APPLICATION (NON-FILTER)

Electrical supply (standard): 380V, 3 phases, 50Hz (Optional upon request); 220V, 3 phases, 60Hz

Mixing Heads: Full range of self-cleaning mixing heads

Hydraulic unit, boom and chiller are available

#### **OPTIONAL:**

Magnetic Couplings for pumps to ensure non-leakage of chemicals Flow meters and closed loop control Air Nucleating unit for improvement of mixing and flowability

Model	Max Output		Absorbed Power	Ratio Change	Tank Capacity	Compressed Air
GMA	Kg/min at ratio		- KW	POL/ISO	Litro (acab)	6 har (al/min)
	1:1	2:1	- KW	F0L/150	Litre (each)	6 bar (nl/min)
H6	5.4		Ω20	5:1 to 1:5	100	80
H10	9		Ω24	5:1 to 1:5	270	100
H20	18	-	Ω25	5:1 to 1:5	270	100
H40	36	-	Ω30	5:1 to 1:5	270	100
H60	-	54	Ω40	2:1 to 6:1	270	100
H100	90	-	Ω50	5:1 to 1:5	270	100
H200	175		Ω100	5:1 to 1:5	270	120
H300	300		Ω180	5:1 to 1:5	500	120

#### Notes:

- Output indicated as maximum output of machine per model, based on 1:1 component A:B mix ratio, PU chemicals with viscosity between 15 2000 cps.
   Specific gravity: ISO = 1.20, POL:1.05.
- We supply various carousel plant for many products application.
- Supplier reserves the rights to change design or specification according to technology advancement.



# LOW PRESSURE FOAMING MACHINE MODELS: Lv2, Lv7, Lv15, Lv30, Lv60, Lv100 & Lv100 Twin

The low pressure machines are equipped with reliable and accurate German gear pumps
It has PLC control and inventor system,
to allow flexible output adjustment instantly
Electrical supply (standard): 380V, 3 phases, 50Hz
(Optional upon request): 220V, 3 phases, 60Hz
Full range of mixing heads from 7 - 1,650 grams/sec,

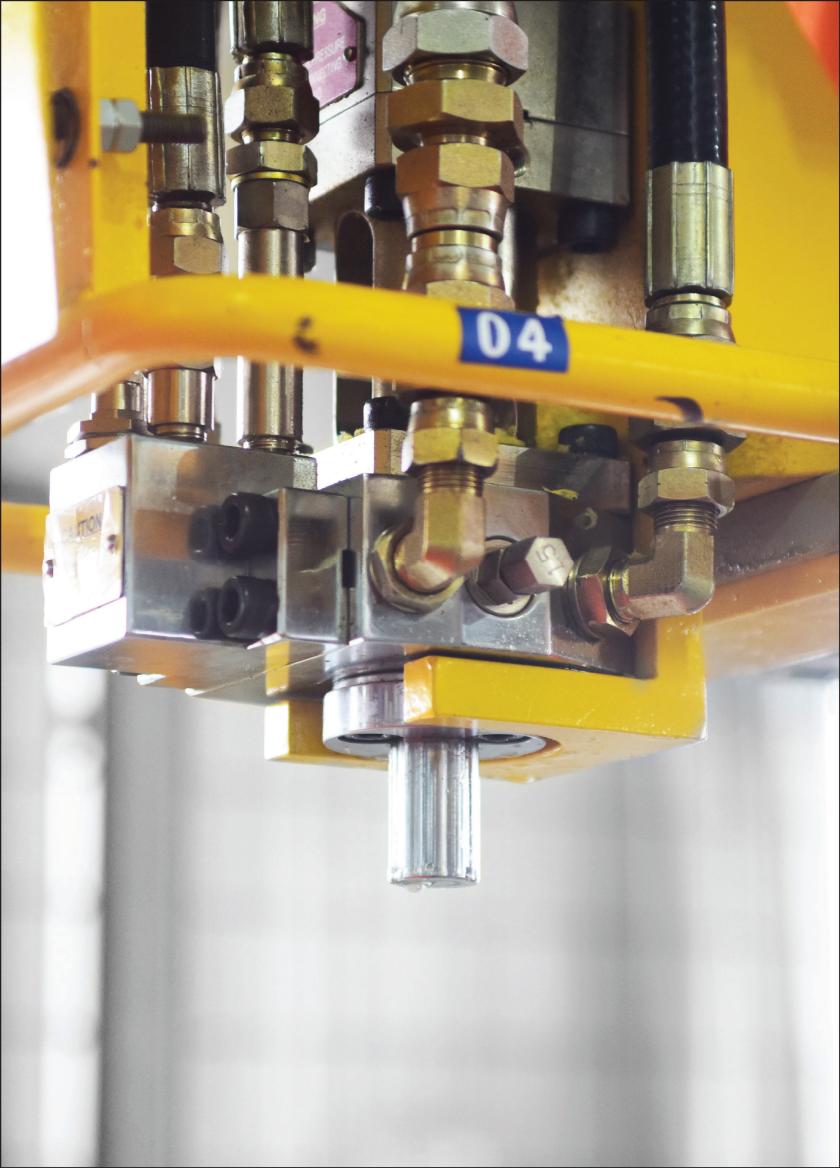
Model	Max Output	Absorbed Power	Tank Capacity		Compressed Air
GMA	Ratio 1:1 (kg/min)	KW	Material Litre (each)	Solvent (Litre)	6 bar (nl/min)
Lv2	0.4 - 2.0	3.2	40	19	100
Lv7	1.4 - 7.0	7	40	19	100
Lv15	3.0 - 15.0	8	40	19	100
Lv30	6.0 - 30.0	17	100	19	130
Lv60	12.0 - 60.0	20	100	19	130
Lv100	20.0 - 100.0	21	100	19	150
Lv100 Twin	40.0 - 200.0	42	270	38	300

based on 1:1 component A:B mix ratio

#### Notes:

- Output indicated as maximum output of machine per model, based on 1:1 component A:B mix ratio, PU chemicals with viscosity between 15 2000 cps.
   Specific gravity: ISO = 1.20, POL:1.05.
- We supply various carousel plant for many products application.
- Supplier reserves the rights to change design or specification according to technology advancement.





#### **HIGH PRESSURE MIX HEADS**



Item No. 9102002 Low Pressure Mix Head Model: CMX100



Item No. 9102005 Mix Head for Lv2 Machine Model: CMX2



Item No. 9103028 L-Style Mix Head *Model: L14R* 



Item No. 9103035 Mix Head with Spacer *Model: L18S* 



Item No. 9107005 | Tri-Piston, Air Driven Mix Head for Continuous Sandwich Panel | *Model: AFT10/18* 



Item No. 9108003 4 Components Straight Head Model: S24-4



Item No. 9108006 Straight Head *Model: S24* 



Item No. 9108010 Straight Mixhead Spray with Air Purging | *Model: S10YA* 



Item No. 9108011 Straight Mixing Head *Model: S10* 

#### **CONNECTED** AND **POISED** TO RESPOND **GLOBALLY**

Our network of more than 20 offices span across North and South Asia, the Middle East and the America. With over 30 years of accumulated experience in the PU technology space, we're on-call 24/7 and able to respond on-site and effectively. It's always been our promise to our customers and is what has earned us their trust to be the preferred global partner.



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