

# Cast Elastomer PU Machines (TDI/MDI)

2/3 Component System with up to 4 colour pigment dosing



IoT Ready Machines



Made in  
India

**50+**  
Installations







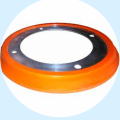
Exports  
Worldwide

Proven and tested for

- > Coim      > DOW
- > Lanxess   > Era Polymers



# Cast PU manufacturers benefit from Twin's technology

Products	Machine	Result
 <p>Chennai &amp; Mumbai based manufacturer automates Casting for <b>PU Rollers</b> weighing 60 to 140 Kg with hardness of 55 to 95 shoreA</p>	<p>Smart Series Machine with Pigment Dosing; flow rate of 8 Kg/min</p>	<ul style="list-style-type: none"> <li>➤ Near zero material wastage</li> <li>➤ Consistent dispensing without bubbles, Patches</li> <li>➤ High flow-rate for short pot life (8 min)</li> <li>➤ Guaranteed hardness for Rollers with accurate mixing ratio</li> </ul>
 <p>Greater productivity for a Bengaluru based <b>PAD Sheet Manufacutrer</b> with Twin's 2 Component Cast PU Machine</p>	<p>2 Component Smart Series Machine for TDI with flow rate of 5.5 Kg/min</p>	<ul style="list-style-type: none"> <li>➤ 25% improvement in productivity</li> <li>➤ 70% reduction in material wastage</li> <li>➤ Achieved total accuracy in mixing and dispensing</li> <li>➤ High flow rate to prevent solidification of product</li> </ul>
 <p>Improved quality and longer life for <b>pipeline pigs</b> used in oil industry</p>	<p>Extensive Series 3 Component MDI/TDI with oven</p>	<ul style="list-style-type: none"> <li>➤ Improved life PU Pipeline pigs by 80%</li> <li>➤ Faster production saved 20% time/shift</li> <li>➤ Reduced material wastage up to 50%</li> </ul>
 <p>Desired quality for <b>MDI Roller Wheels</b> (7 to 10 Kg) for Thailand based manufacturer</p>	<p>Smart Series (MDI) Machine</p>	<ul style="list-style-type: none"> <li>➤ Proven for MDI 896 material on every parameter such as hardness, elongation, density etc.</li> <li>➤ Perfect bonding parameters for MDI material</li> </ul>
 <p>Reduced rejection for heavy duty <b>PU Discs</b></p>	<p>3 Component MDI Machine with Pigment Dosing; Flow rate of 3 Kg/min</p>	<ul style="list-style-type: none"> <li>➤ Huge savings in time</li> <li>➤ Rejection down by more than 70%</li> <li>➤ 60% gains in productivity</li> <li>➤ New business from customers with improved quality and finish</li> </ul>

**Need help to automate your Cast PU production?**

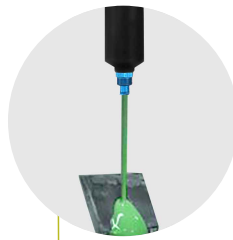
Starting from assessing suitability of your process, Trials on your moulds with materials to proving the component with end customers, Twin's Engineering team will help you at every step.

# The secret of our success!

With Twin's Machine we could control the process and improve quality and production output by multi fold. This helped us in business expansion and also led to strategic tie up with our customer for dedicated manufacturing facility.



**Suresh Kumar,**  
General Manager,  
Jyoti Cero Rubber,  
Jamshedpur



**3 Component  
TDI Machine**

The Machine offers excellent process control. The Operators were trained by Twin's team in a week's time. The service support and availability of spares has never been an issue. In fact, the Service Engineer is always available for technical and training related support.



**Mr. Putcha Chandra Sekhar,**  
CEO, Sree Trio Poly Tech,  
Hyderabad

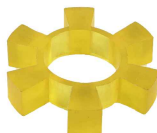


**2 Component  
MDI Machine  
(quasi-system)**

Thanks to Twin's solution, today, our mindset and confidence is at a totally new level - we feel empowered to go for bigger orders. This change in mind set and boost in confidence is the real magic. Twin's MDI/TDI machine has, in fact, opened doors to new, bigger business opportunities for us.

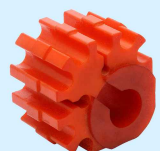
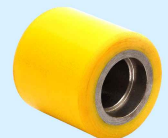
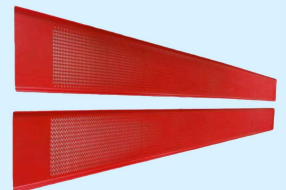


**Tushar Patki,**  
Heramb Thermoplastics  
Pvt. Ltd, Pune



**3 Component  
MDI Machines**

Made with  
Twin's Machines



# Cast components starting from 100 gm up to 200 kg

## KEY MACHINE FEATURES

- Modular design
- Stainless steel tanks
- Electrical heating
- Raw material recirculation
- Stirrers to prevent material sedimentation
- Pigment/additive direct injection line (optional)
- Observation glass on tanks

## 2 Component System for Cast Elastomer PU (TDI/MDI)

with up to 2 colour pigment dosing



### 2 COMPONENT MDI/TDI

Flow rate	up to 4 Kg/min	
Power	22 KW	
Ratio	Variable	
Recipes	25	
	(A)	(B)
Tank capacity	100/200 L	10/45 L
Temperature (Adjustable)	100°C	130°C

### 2 COMPONENT MDI/TDI

Flow rate	up to 7 Kg/min	
Power	24 KW	
Ratio	Variable	
Recipes	25	
	(A)	(B)
Tank capacity	200 L	45 L
Temperature (Adjustable)	100°C	130°C

### 3 COMPONENT MDI

Flow rate	up to 4 Kg/min		
Power	23 KW		
Ratio	Variable		
Recipes	25		
	(A)	(B)	(C)
Tank capacity	100 L	100 L	10 L
Temperature (Adjustable)	100°C	100°C	100°C

### 3 COMPONENT MDI

Flow rate	up to 7 Kg/min		
Power	28 KW		
Ratio	Variable		
Recipes	25		
	(A)	(B)	(C)
Tank capacity	200 L	200 L	45 L
Temperature (Adjustable)	100°C	100°C	100°C

For 3 component MDI systems  
(A) Pre-polymer, (B) Chain extender, (C) BDO

## 2/3 Component System for Cast Elastomer PU (TDI/MDI)

with up to 2 colour  
pigment dosing



### 2 COMPONENT MDI/TDI

Flow rate	up to 3 Kg/min	
Power	22 KW	
Ratio	Variable	
Recipes	25	
	(A)	(B)
Tank capacity	45 L	10 L
Temperature (Adjustable)	100°C	130°C

### 3 COMPONENT MDI

Flow rate	up to 3 Kg/min		
Power	23 KW		
Ratio	Variable		
Recipes	25		
	(A)	(B)	(C)
Tank capacity	45 L	45 L	10 L
Temperature (Adjustable)	100°C	100°C	100°C

For 3 component MDI systems  
(A) Pre-polymer, (B) Chain extender, (C) BDO



## 2/3 Component System for Cast Elastomer PU (TDI/MDI)

with up to 4 colour  
pigment dosing

### 2 COMPONENT MDI/TDI

Flow rate	up to 20 Kg/min	
Ratio	Variable	
Recipes	25	
	(A)	(B)
Tank capacity	400 L	60 L
Temperature (Adjustable)	100°C	130°C

### 3 COMPONENT MDI

Flow rate	up to 20 Kg/min		
Ratio	Variable		
Recipes	25		
	(A)	(B)	(C)
Tank capacity	400 L	400 L	60 L
Temperature (Adjustable)	100°C	100°C	100°C

For 3 component MDI systems  
(A) Pre-polymer, (B) Chain extender, (C) BDO

# Quick Support

Efficient post sales team which fastest possible turn around for service request



We understand the importance of reliability and availability of equipment and strive hard to ensure that your machine is always operational. Keeping this thought at center Twin offers two key services health check-up assessment and AMC's. In-house maintenance teams rely on Twin's systematic and expert services to achieve highest reliability and consistency for critical applications.

## Health Check-up Assessment

Preventive health check-ups are important for a high performance and long life of the equipment. They also reduce the future risks of failure or breakdown.

## Annual Maintenance Contracts

In addition to regular health checks, your equipment require a structured preventive maintenance plan. This will ensure that they remain in service for as long as possible & remain reliable throughout their life.

## Services we offer

- End-to-end commissioning with equipment proving at the site
- Equipment breakdown or repetitive breakdowns
- Deep study with root cause analysis, diagnostic approach
- Corrects spares with proper availability
- Process failures, cycle time issues

## What you get

- Service at your doorstep through a single point of contact
- Instant service app with real time updates
- Consultative approach to problem solving
- Lifetime relationships through personalized attention

# Industry 4.0 Ready



- Monitor production output from mobile
- Get machine downtime and maintenance alerts
- Export process data for traceability

Twin Engineers has taken the lead in exploring new possibilities from Industry 4.0 technologies. Our machines have the capability to change the way you run and profit from business.

- **Smart Maintenance**  
Automated, condition based maintenance with smart alerts on email and sms
- **Smart Insights**  
Wifi/USB Production Data Logging and export for every process parameter that matters
- **Smart Quality Checks**  
Automated with in-process Vision Camera Inspection
- **Smart Support**  
Remote maintenance with 'Instant Service App' for Machine Operators
- **Smart Help**  
Built-in E-Manuals, troubleshooting Videos for quick assistance
- **Smart Reports**  
End of Day Production, Faults, Material Consumption, Rejections, Idle Time etc.



## Truly Global

Customer base and  
service support  
spanning across the globe.



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### CUSTOMER SUPPORT NETWORK

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UAE	Ahmedabad
SEA	Bengaluru   Chennai

[www.twinengineers.com](http://www.twinengineers.com)