

Produce Blades Faster by

UPTO 25%

▶ **India's First**
Inline Degasser & Direct
Resin Infusion Machines

▶ **Proven machines**
for composite manufacturing of
small to large wind blades

▶ **Complete range
of production machines**
for resin mixing & dispensing
in wind rotor blade





2,000+ Wind Blades Manufactured in last 18 months with Twin's Machines



Twin Engineers won the innovation award at ICERP JEC 2023 in the Process Equipment / Machine category. Twin's latest cutting edge "In-Line Degasser with Synchronised Infusion" emerged as a winner from 300+ nominations. The solution offers several unique advantages and is set to change the course for composite industry.

85+ Meters

Long Blades produced
with Twin's Machine

100+

Installations
in Composites

8 Award

Winning Machines

30 Years

of Expertise in
Dispensing

Exports to
10 Countries

24X7

Dedicated Service
Support



Key Customers



We could achieve 100% reliability, produce more wind blades in the same plant by using Twin's Machines.

General Manager,
A Leading Wind Blade Manufacturer

From concept to production in just a few weeks, Twin's expertise and support ensured highly reliable, 100% accurate infusion and adhesive bonding processes right from the start

Head of Production,
A Leading Wind Blade Manufacturer

Success from deep partnerships with customers

100% process traceability in real-time at a fraction of the costs with Intelligent Infusion.

Ergonomic, easy and productive systems, designed in totality, for your needs.

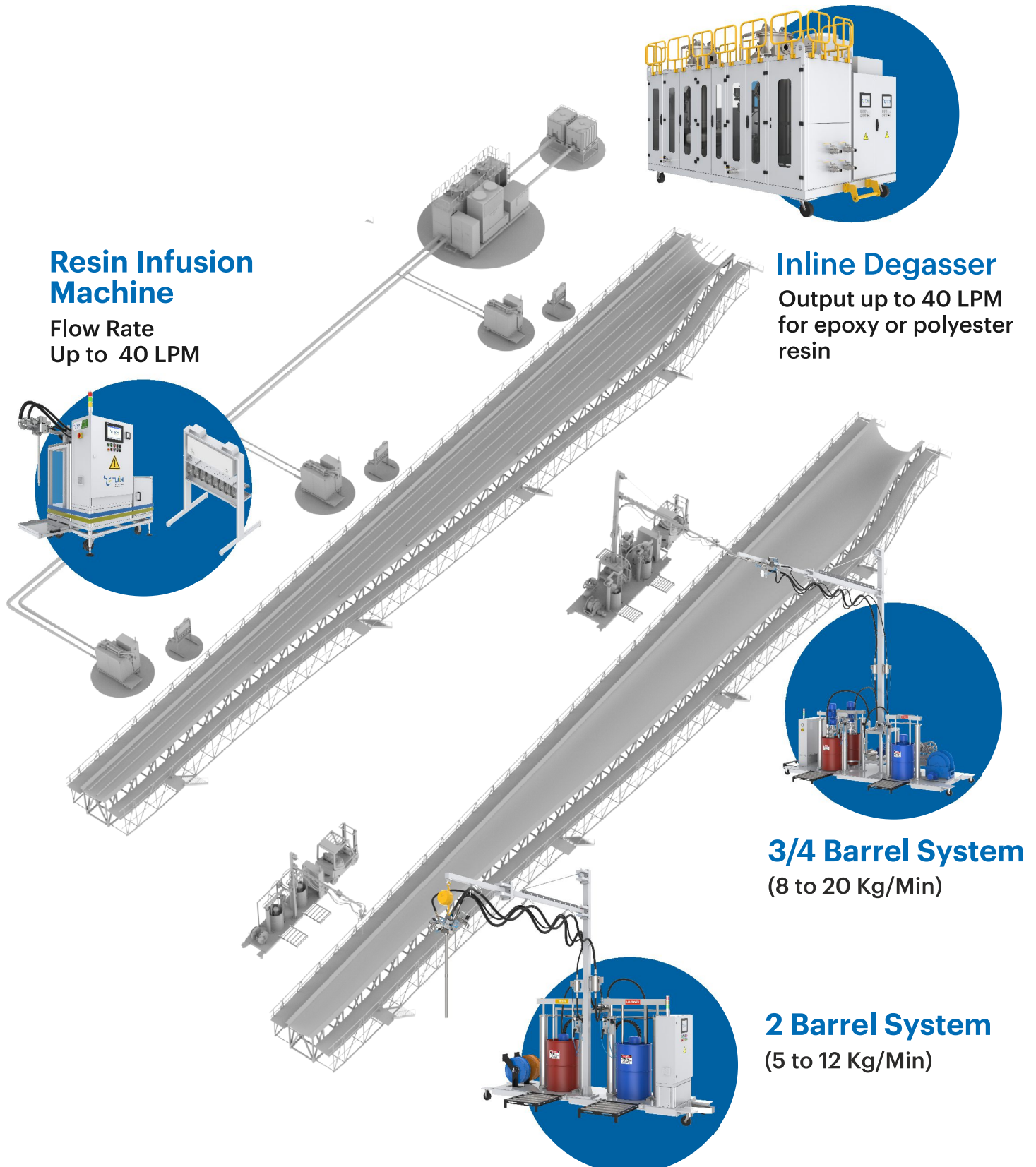
Streamline critical processes with touch-less mixing and dispensing.

Zero Air Bubbles in infusion means reduced rework and significantly improved sustainability through energy savings.



Thoughtfully designed Machines for Wind Blade Manufacturers

Mould Shop



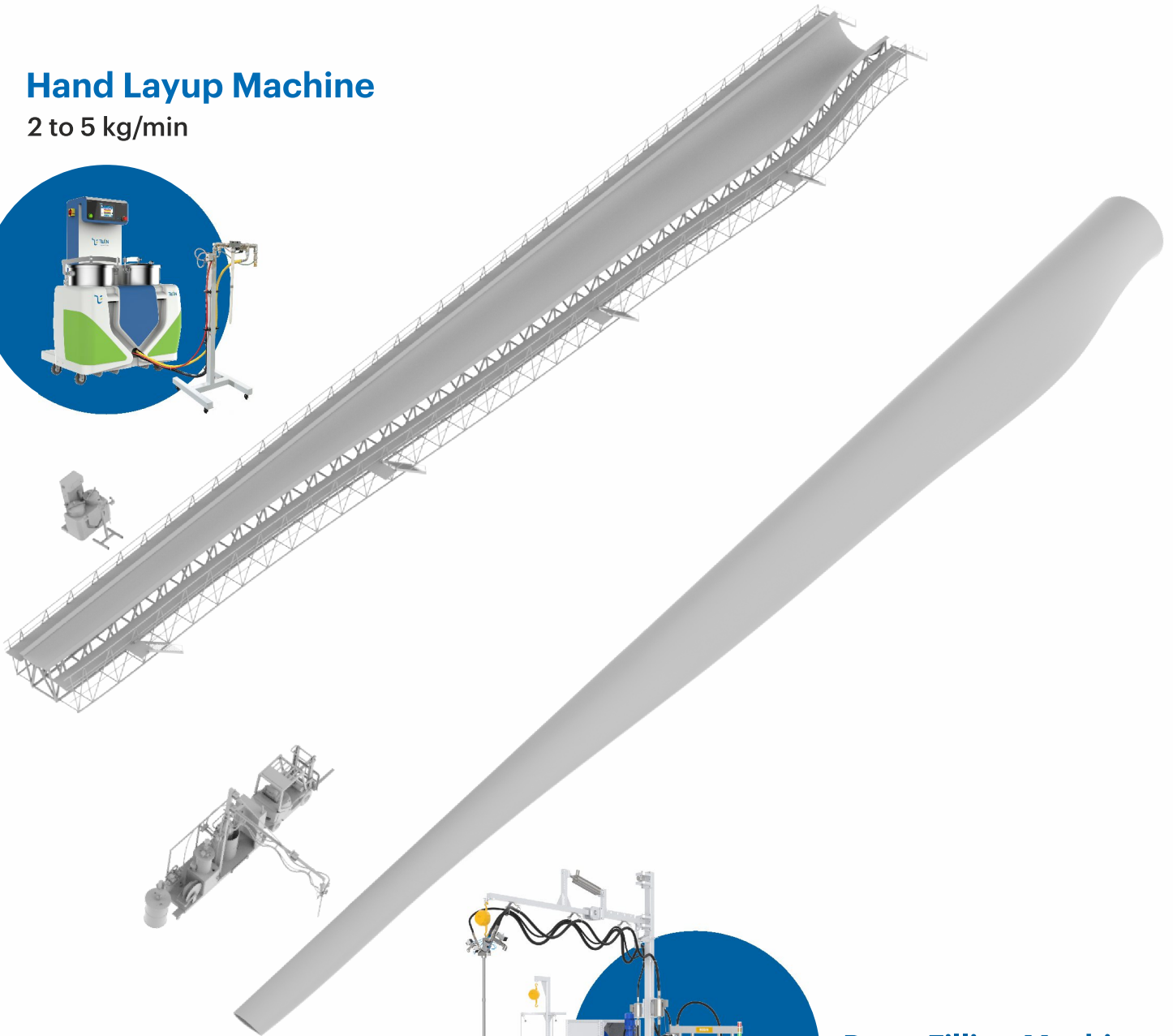


Mould Shop

Post-Mould/Blade Finishing

Hand Layup Machine

2 to 5 kg/min



Putty Filling Machine

Up to 4 Kg/min



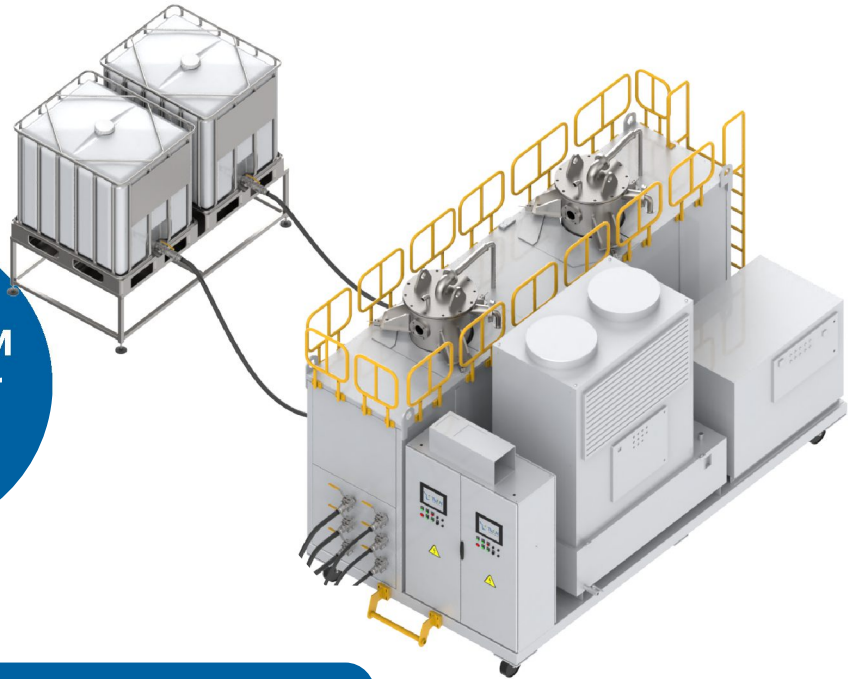


Inline / Offline Degasser

Enhance degassing quality,
reduce cycle time

Inline degasser is used to degas the resin to get moisture-free and bubble-free material.
The degasser is ideal in large-scale preparation processes of epoxy and polyester resins.

Output
up to 40 LPM
for epoxy or
polyester
resin



- > Variable flow rate
- > Connections to 3 infusions machines
- > Saves time in multiple recirculations of resin
- > Compact design saves space
- > Instant start
- > Easy for maneuvering

Model 1 : DGV-40-COMBI

Resin & Hardener Degasser
40 LPM (Combined for R+H)

Dimensions (in mm)
1860 W X 4600 L X 2800 H

Model 2 : DGV-40

Resin Degasser- 40 LPM

Dimensions (in mm)
2200 W X 3300 L X 2700 H



SPECIFICATION

**Maximum
degassing
capacity**
2400 l/h

Vacuum level
< 15 mbar abs

Control
Siemens PLC control
with 15" HMI screen
18 Kw, 3Ph, 440 VAC

Other Features
Variable output flow based
on the consumption of resin
200 litre buffer tank with
automatic filling



3 in 1 Infusion Machine

Bucket Infusion

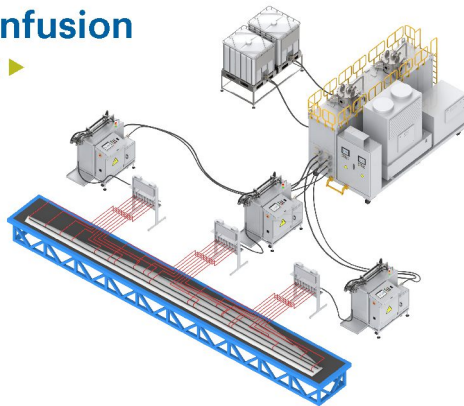
Softbags Infusion

Direct Infusion

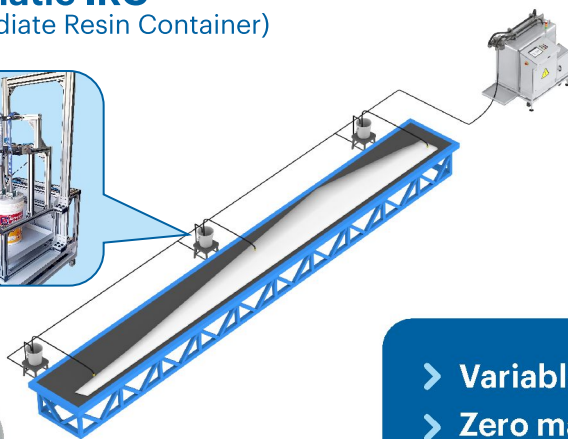
Get the best efficiency with total control over mixing ratio

Twin has developed specialized systems for infusion of two component resin used in fiber matting process in manufacturing of windmill rotor blades. These systems allow accurate ratio control throughout the infusion process and thus ensure the best efficiency in wind blade production.

Direct Infusion System ▶



Automatic IRC ▶ (Intermediate Resin Container)



Wireless Remote Control Operation

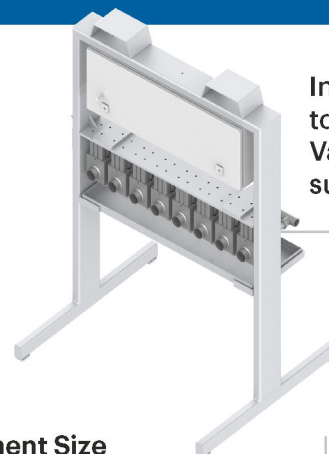
The wireless remote allows the operator to easily switch-on & switch-off the material flow, or increase & decrease the flow rate even when he/she has moved away from the system while working at the mould.

- ▶ Variable flow rate
- ▶ Zero material preparation time
- ▶ Dispensing upto 50 mtr length from machine

Model 1
5 to 25 Kg/min

Model 2
6 to 40 Kg/min

Special Model
1 to 20 Kg/min



Infusion Manifold with up to 12 Eletro-pneumatic Valves can be supplied to support the Direct Infusion

SPECIFICATION

System
Portable;
easy to move

Mixing Ratio
100:20 to 100:70

Equipment Size
1200 mm(W) X 2400 mm(D) X
1900 mm(H)

Electrical Load
4.5 KW



Glue Paste Machine

Reliable mixing quality for high-viscous pastes at high volumes

Twin's meter mix dispensing systems for two component epoxy resin ensure accurate mixing ratio for the adhesives and are specially designed for high volume dispensing of the glue in stipulated time for bonding of shells and large composite structure.



2 Barrel System
(5 to 12 Kg/Min)



3/4 Barrel System available
(8 to 20 Kg/Min)

Attachments: Electric Puller with in-built camera system, Auto-retractable cable reels, Biometrics & Face Recognition Access

- Well proven for highly viscous, paste-like adhesives
- Ideal for high volume dispensing of glue
- 2 component system with standby feeding and metering system available for auto changeover of material (Optional)
- 5 Mtr Boom Assembly for ease of dispensing; Auto adjustable drive for boom
- Built-in compressor and electric cable for easy movement of machine upto 50 mtrs

SPECIFICATION

System	Flow Rate	Mixing Ratio	Viscosity	Electrical Load
Modular & easily movable	8 to 20 LPM	100:20 to 100:100	Up to 1 million cps at 25°C	20 KW



Putty Filling Machine

Mixing of high viscosity materials for smooth finish and protection of wind rotor blades



Model 1



Model 2

- 200L Barrel for Comp A & 60L Tank for Comp B
- Air Dryer to remove Moisture
- Material B Transfer System from Barrel to Machine Tank
- 3 Mtr Boom Assembly
- Built-in 50 mtr Pneumatic hose reel & electric cable reel
- Variable flow rate 1.5 to 4kg/min
- Portable machine; Can be easily moved inside the plant

SPECIFICATION

Flow Rate
Up to 4 Kg/min



Hand Layup Machine

Ideal for wind blades manufactured with open mold process.



- > Programmable recipes
- > Variable ratio
- > Easily movable, operator friendly
- > Extended boom structure with handheld dispensing gun (optional)
- > Compact machine design

SPECIFICATION

Flow Rate
2 to 5 kg/min

Tooling Paste Machine

for mixing & dosing of 2-component highly viscous paste for

- > Blade Mould / Plugs Manufacturing
- > Bulkhead Gluing
- > Automotive modelling

Compatible Materials

- > Epoxy
- > Polyurethane

SPECIFICATION

Flow Rate
4 kg/min





**Real-time intelligence
for highest reliability.**

100% Traceability

**Easy but secure Data
logging and exports |**

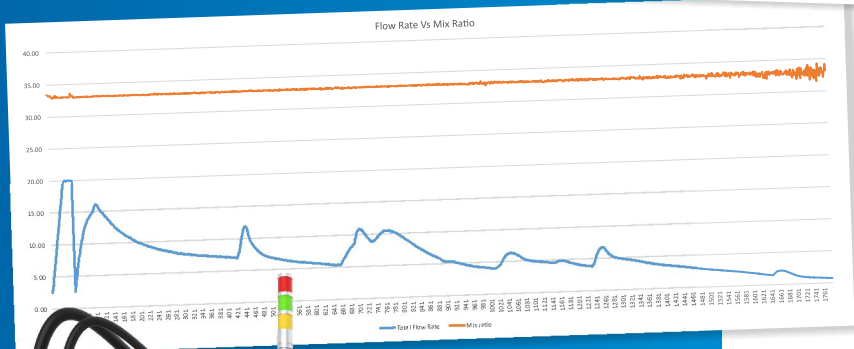
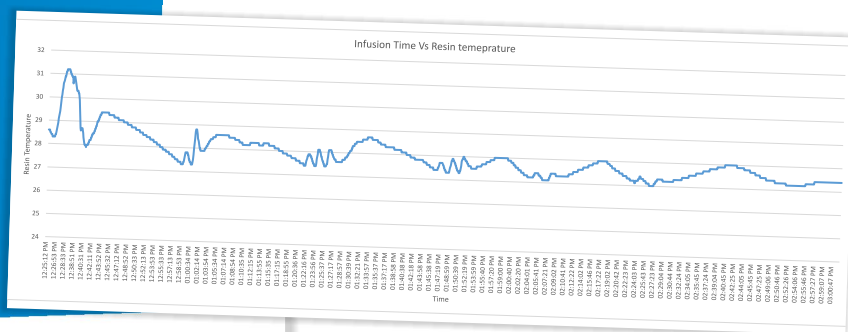
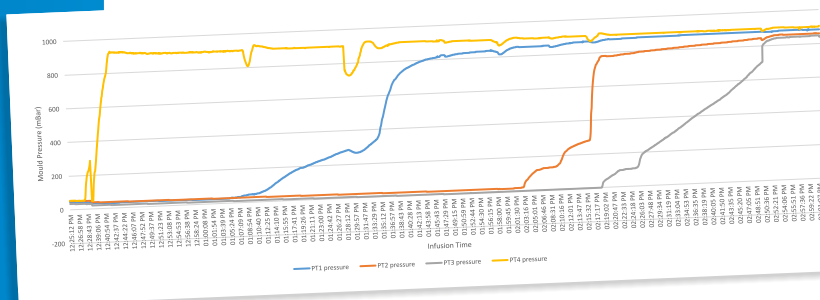
Real-time trends

for CTQ process parameters
such as temperature, metering,
line pressure, flow rate etc.

Predictive Maintenance Reports
with instant alerts for fault
prevention in critical components

Biometric Access

for Machine Operators
required to unlock controls
of CTQ parameters



About Twin



Over 30 years of expertise in resin mixing and dispensing technology



Team of 120+ Technicians and Engineers



State-of-the-art manufacturing plant in Pune, India



Machines delivery in under 12 weeks



More than 1500 Meter Mix Dispensing machines working within & outside India



Spares delivery in hours / days not in weeks & months!



24 X 7 Service support



CE Certified Systems



Truly Global

Customer base and service support spanning across the globe.



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GLOBAL SUPPORT

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