

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

In-line Degassing

Resin Infusion

Gluing and bonding

Pore filler

Gel Coating

Hand Layup

Blade Balancing

Putty Mixing



Proven machines for composite manufacturing of small to large wind blades ►

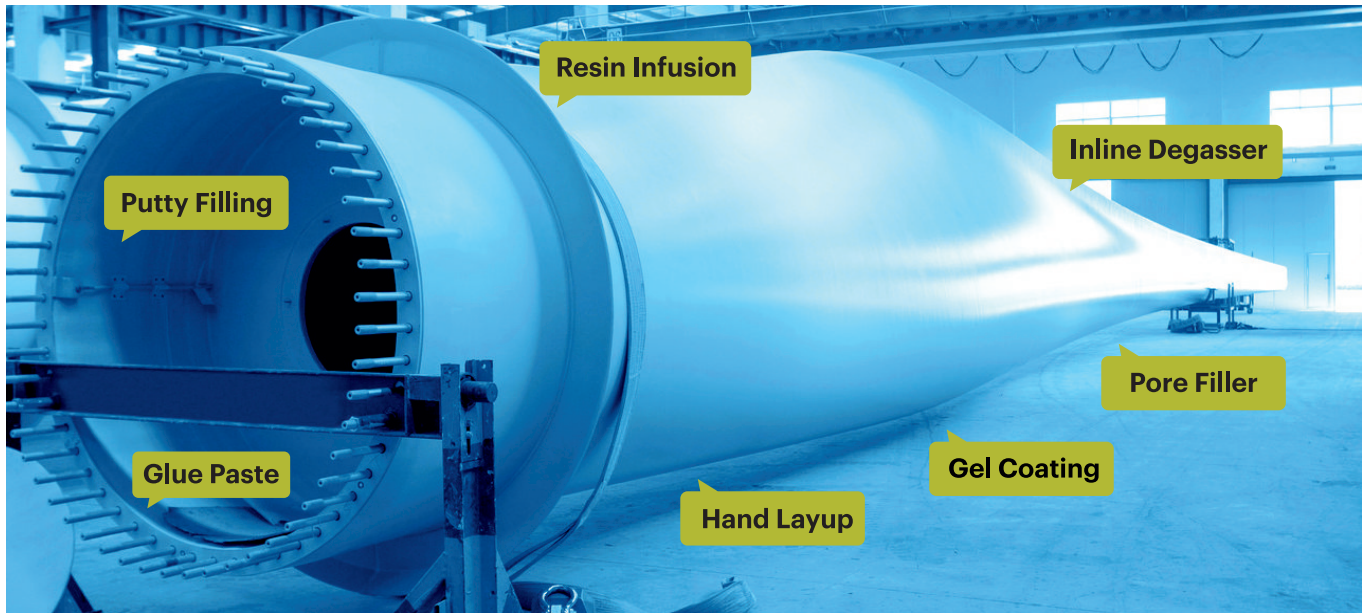


See Inside ►

India's First

Inline Degasser & Direct
Resin Infusion Machines

Installations in 15+ Wind Blade manufacturing facilities in India



80+ meters

Long Blade Shell being Produced

12 Weeks

Machine Delivery

40% savings

On CapEx & OpEx

KEY CUSTOMERS

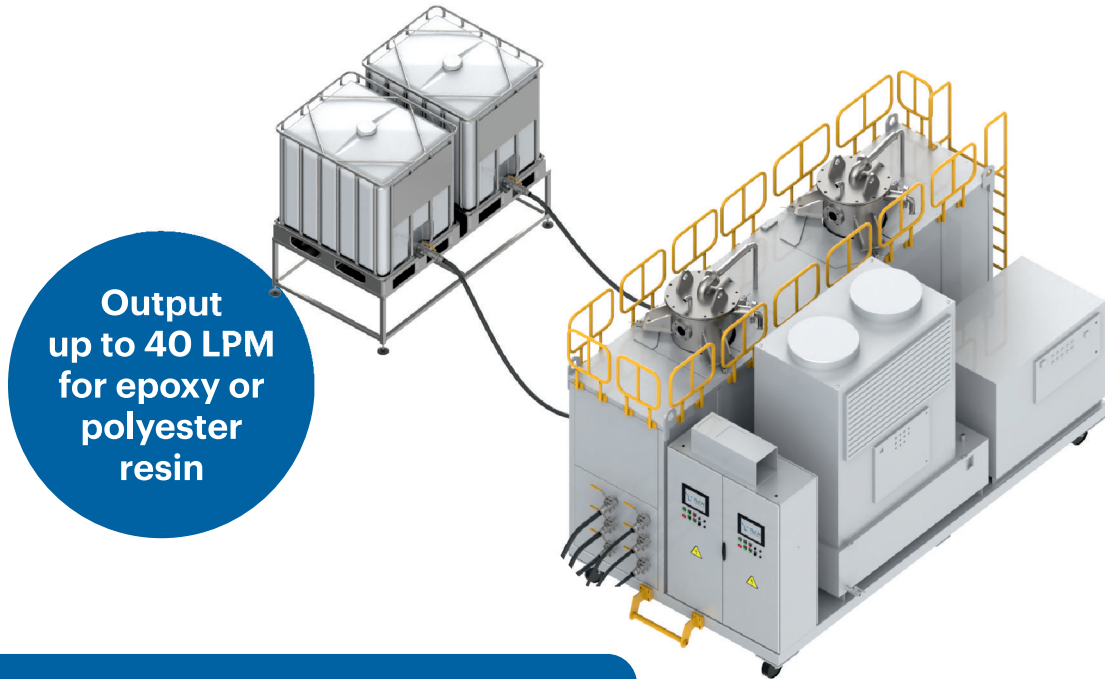


Twin Engineers won the innovation award at ICERP JEC 2023 in the Process Equipment / Machine category. Twin's latest cutting edge "In-Line Degasser with Synchronised Infusion" emerged as a winner from 300+ nominations. The solution offers several unique advantages and is set to change the course for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

Inline Degasser

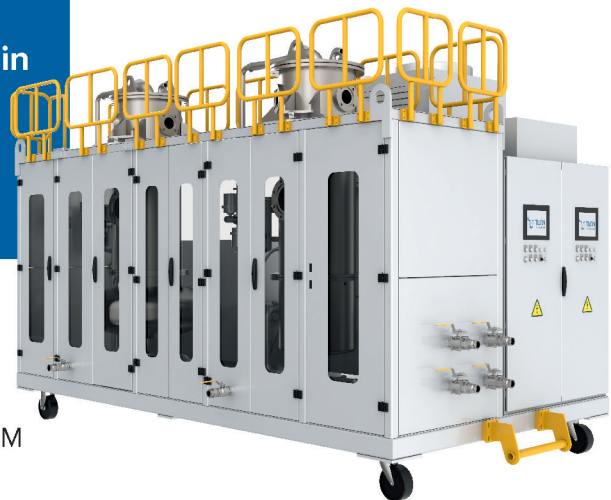
Enhance degassing quality, reduce cycle time

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

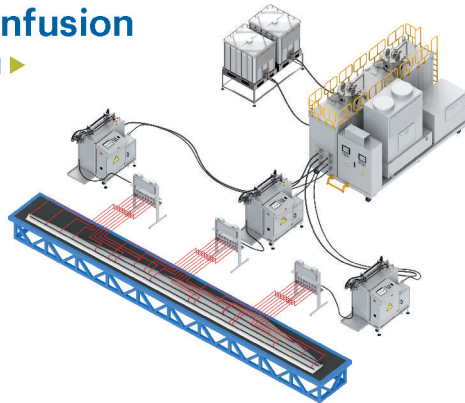
Other Features
Variable output flow based on the consumption of resin
200 litre buffer tank with automatic filling

Resin Infusion Machine

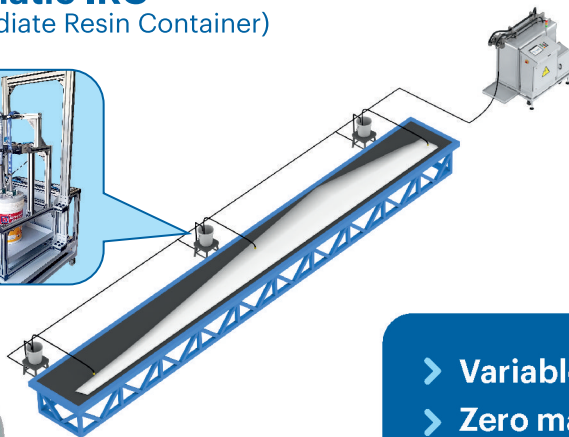
Get the best efficiency with total control over mixing ratio

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

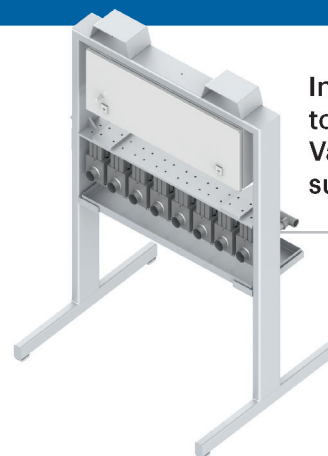
The wireless remote allows the operator to easily switch-on & switch-off the material flow, or increase & decrease the flow rate even when he/she has moved away from the system while working at the mould.

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

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



- > 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

Pore Filler Machine

Portable Epoxy dispensing machine for filling the defective or repaired areas after de-moulding of wind blade components



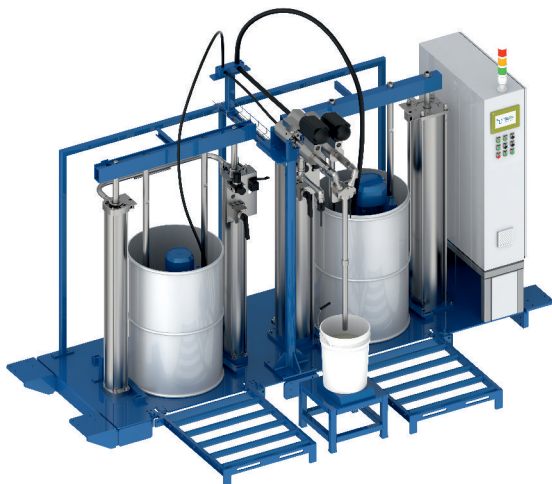
- > Inching mode for dispensing
- > Variable ratio
- > Compact and Portable design for easy movement
- > Heated hoses

SPECIFICATION

Hose Length 10 Meters	Flow Rate Up to 2 kg/min.	Mixing Ratio Variable
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Gel coating machines

Precision gear mixing for accurate material properties in wind rotor blade protection



- > Smart machine with HMI, and advanced controls for automated dispensing
- > Easy to operate; Requires low maintenance

SPECIFICATION

Flow Rate up to 3 Kg/min

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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