YEAR 22

GROUPE CARBOMAN

CARBONE MANUFACTURE

LET'S CREATE THE UNEXPECTED...

OUR VOCATION:

To bring a **global answer** from conception to manufacturing, installation and maintenance of composite structures.
Our **creativity** and **innovative spirit** enables our customers to succeed in their challenging projects, bound by strict standards of high quality, safety, cost and deadlines.

- AERONAUTICS & SPACE
- DEFENCE
- INDUSTRY
- CIVIL ENGINEERING
- RACING YACHTS
- SERVICES

GROUPE CARBOMAN:

Composite parts manufacturing since 1981

VALUES

- Commitment
- Proximity
- Team Spirit



ERNEST DE JOUY

TEAM AND MEANS OF PRODUCTION

MULTIPLASTYCKLE BARIS

5 MANUFACTURING HALLS (6 000 m²)

32 m ovens 200°C class 12 m x 1.5 m autoclave
100% air conditionned
Overhead crane

A TEAM OF 150 TECHNICIANS, ENGINEERS AND TECHNICAL SUPPORTS

certified ISO 9001 and EN 9100

MARIN LE ROUX / POLARYSE





TPT PLOTTER

Length x Width
8 x 3 m

JEAN-MARIE LIOT

PAINT BOOTH

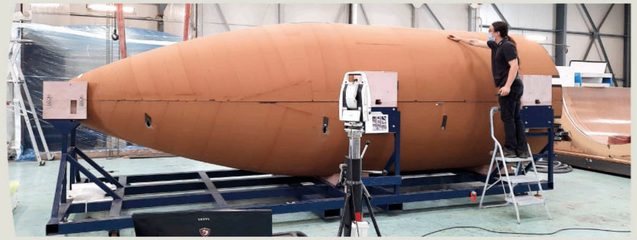
Length x Width x Height 24 x 8 x 4 m



JEAN-MARIE LIOT

TEAM AND MEANS OF PRODUCTION

MULTIPLAST



LAUNCH VEHICLE UPPER FAIRING

Built: 2021
Lenght: 6,20 m
Materials: Epoxy - Carbon - Cork



MULTIPLAST

FUSELAGE FOR ELECTRIQUE AIRCRAFT

Built: 2020
Materials: Carbon - Nomex
Client: **EVIATION**



MULTIPLAST ©JEAN-MARIELLOT

AERONAUTICS & SPACE

FUSELAGE FOR ELECTRIC AIRCRAFT

AERONAUTICS & SPACE

FLYING WHALES AIRSHIP

Design and calculation of the tail planes

FLYING WHALES

FLIGHT SIMULATORS

Building: Since 1999
Production: 12 domes for Tigre helicopters
Materials: Carbon fibre
Technology: Pre-impregnated in female mould
Client: **THALES TRAINING SIMULATION**

MULTIPLAST



AIR INTAKES

Building: Since 2002
Production: 10 ground tests air intakes
Materials: Carbon fibre
Technology: Wet lay up
Client: **AIRBUS, SAFRAN**



MULTIPLAST

DEFENCE

COASTAL SURVEILLANCE RADAR

50 CW100 since 2011
Span 4.40 m
Materials: Carbon - Epoxy
Technology: Pre-impregnated
Client: **THALES**

MULTIPLAST

RADOMES

Built: 2008
Length: up to 4.00 m
Materials: Glass fibre - Quartz fibre
Epoxy resin - Honeycomb
Cyanate ester resin
Technology: Pre-impregnated
Client: **THALES**

MULTIPLAST



RADOMES

Built: 2008
Length: up to 4.00 m
Materials: Glass fibre - Quartz fibre
Epoxy resin - Honeycomb
Cyanate ester resin
Technology: Pre-impregnated
Client: **THALES**



DR

PARABOLA

Built: 2010 - Diameter: 5.50 m - Materials: Carbon
Technology: Integrated de-icing system - Client: **ZODIAC AEROSPACE**



MULTIPLAST

INDUSTRY

SEABUBBLES ELECTRIC FOILER

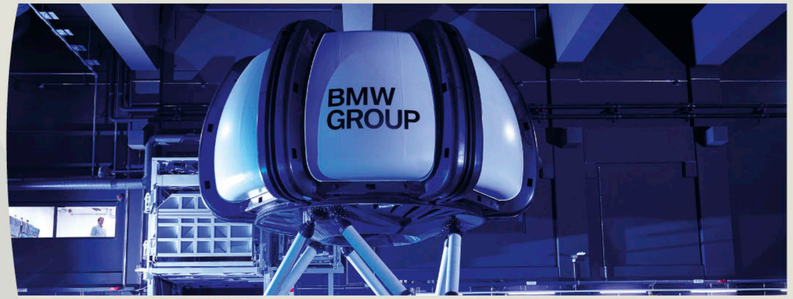
2 foilers built in 2021
Material : Sandwich Glass Epoxy PU foam
Technology: Infusion
Hydrogen batteries
Client: **SEABUBBLES**

SEABUBBLES

DRIVING SIMULATOR

3 simulators built in 2020
Materials: Monolitic - Carbon
Technology: Carbon infused
Client: **AVS**

TOM KIRKPATRICK



ALMA RADIOTELESCOPE

25 antennas built between 2007 and 2010
Materials : Pitch carbon fibers
Technology: Pre-impregnated
Client: **THALES ALENIA SPAC**



DR

INDUSTRY



CHANTIER DE L'ATLANTIQUE

PROJECT SILENSEAS & SOLIDSAILS

Multiplast is involve in the consortium in charge of the manufacturing of the 70 m hight masts (20 tonnes each)

DR





DR

SOLID SAIL

Advance solution of sailing propulsion for large ships market
SOLID SAIL is co-invented by **CHANTIERS DE L'ATLANTIQUE** and **MULTIPLAST**

CIVIL ENGINEERING

COMPOSITES DOMES

Built: 2016
Surface: 650 m²
Material: Glass Epoxy and PET foam - Gold
Client: **BOUYGUES**

COMPOSITE FAIRINGS

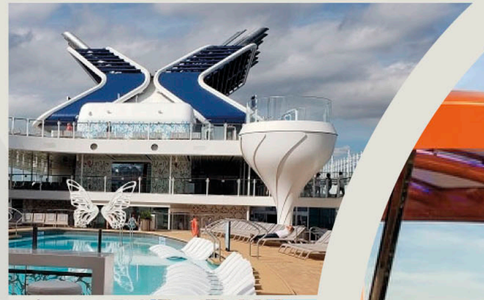
JACUZZI FAIRING

10 components built between 2017 and 2022
Height: 6.00 m
Materials: Glass fibre
Client: **CHANTIERS DE L'ATLANTIQUE**

INNOVATIVE CLADDING

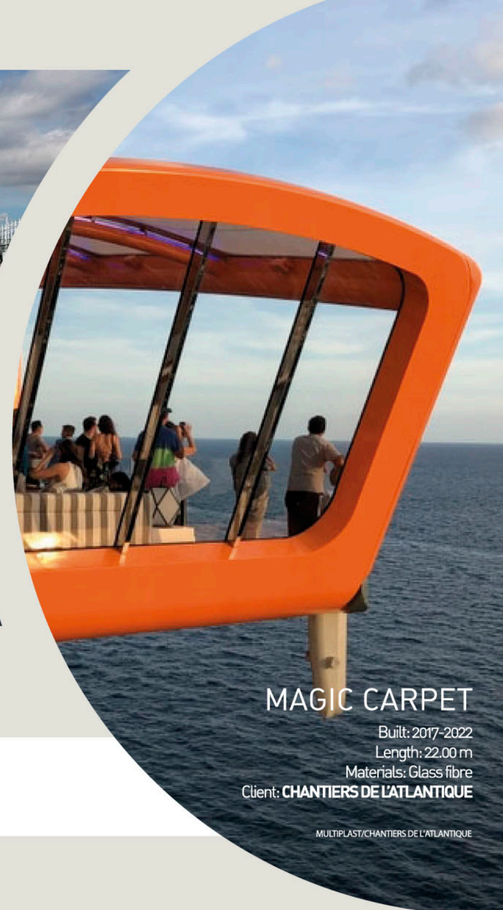
Built: 2017
Length: 23.00 m x 10.00 m
Materials: Flax fibre
Technology: Infusion
Architect: Loci Anima
Client: **PATHÉ WEPLER**

MULTIPLAST/CHANTIERS DE L'ATLANTIQUE





MULTIPLAST/PLASTINOV



MAGIC CARPET

Built: 2017-2022
Length: 22.00 m
Materials: Glass fibre
Client: **CHANTIERS DE L'ATLANTIQUE**

MULTIPLAST/CHANTIERS DE L'ATLANTIQUE

RACING YACHTS

TRACK RECORD:

- 6 Jules Verne Trophies
- 6 atlantic records
- 3 Route du Rhum
- 3 Volvo Ocean Race
- More than 60 racing yachts since 1981



VAREL ON



ANNE BEAUGÉ

MAXI MULTIHULLS

12 boats over 30 m since 2000

CLASS40

Hull length: 12.18 m - B max: 4.60 m - Draft: 3 m



TF35 CATAMARANS

Hull length : 10.85 m - B max : 9.20 m
Draft : 2.45 m - 8 boats delivered

LORIS VON SIEBENTHAL - ALINGHI

RACING YACHTS

RACING YACHTS



DR

MACIF

FOILS FOR FIGARO 3

196 foils built in 2016/2017
Project: Figaro 3
Weight: 35 kg
Architect: VPLP
Boat of the year, Awards Metstrade 2016
Client: **GROUPE BENETEAU**

FOILS IMOCA

Process on molds or out of plan
Clients: **MACSF, MALIZIA, CORUM, 11th HOUR RACING**



JEAN-MARIE LIOT

SERVICES

LASER TRACKING



MULTIPLAST ©Jean-Marie LIOT

REFIT

Winter storage
Painting
Maintenance

WIND ENERGY SERVICES

CURATIVE MAINTENANCE

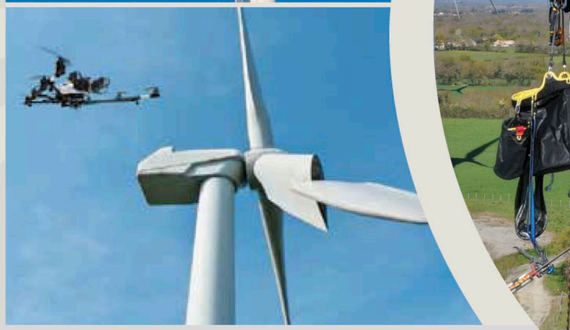
Structural repairs (class 3 or 4)
Acess by self-elevating platform

PREVENTIVE MAINTENANCE

UAV inspections
Blades & systems
Annual maintenance contract or on request



PLASTEOL



PLASTEOL



DR

SERVICES

SUSTAINABILITY

Innovative Sailing technology

Opticarb Research project

Recycled carbon

Windshift 360

PET foam

Cork

Bio-sourced Epoxy

Electric shuttle

New mobility

Wind energy

Innovation

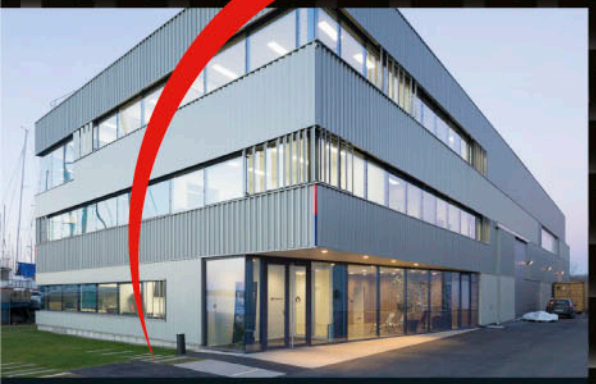
Flying hydrogen boat

Flax fibers

Life cycle analyses

OUR CLIENTS

Baccarat
C.R.I. Ciments Renforcés Industriels
L-FOILER 35
MACIF
orange
SNCF
THALES
HYDROS Multiplicateur d'énergies
AVSIMULATION
mergitee
Malizia
MÜLLER
ISP SYSTEM
J BOATS
Sodebo
ARO WELDING TECHNOLOGIES
LANIC SPORT TEAM
Class 40
INEO GDF SUEZ
BENETEAU
SEABUBBLES
AIRBUS
e-cobot
SOLARIMPULSE AROUND THE WORLD IN A SOLAR AIRPLANE
FLYING WHALES
TIME FOR OCEANS
MER CONCEPT INSPIRED BY THE WINDS OF THE FUTURE
carboprec
VINCI
CHANTIERS DE L'ATLANTIQUE
Lorima
SAFRAN
MACSF
ZODIAC AEROSPACE
INEOS TEAMUK
DAHER
NAVAL GROUP
VOLVO OCEAN RACE ROUND THE WORLD
DMG MORI SAILING TEAM
GTT Expert in LNG
EVIATION
BANQUE POPULAIRE
alinghi
BOREALIS Keep Discovering
STELIA AEROSPACE
BOUYGUES CONSTRUCTION
nexter
JLG
CGN
AVANTIS Group
AREVA
la compagnie du vent ENGIE
SMICHEL VIRBAC
GENERALI GROUP
GITANA
SERMATI
ASTRIUM AN EADS COMPANY
EASY TO FLY
CDK TECHNOLOGIES
AQUARELL
MultiOneDesign
PATIA
Groupama TEAM FRANCE
ThalesAlenia Space
Wind-it
11TH HOUR RACING





BUREAU VERITAS Certification

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CARBONE MANUFACTURE

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BleuSafran 11/2021

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