IN SHORT

heron am™

Turnkey large format additive manufacturing platform for composite material extrusion

CARACOL

Heron AM

Additive Manufacturing with no limits in scale, shape, or materials.

Your turnkey LFAM platform to 3D print advanced, large-scale parts.

Flexibility

Extreme freedom in customizing parts' design and geometries.

Efficency

Optimized lead times and lower costs, without compromising quality.

Sustainability

Process aimed at zero-to-positive impact - cutting waste and using recycled materials.

From applications to technology

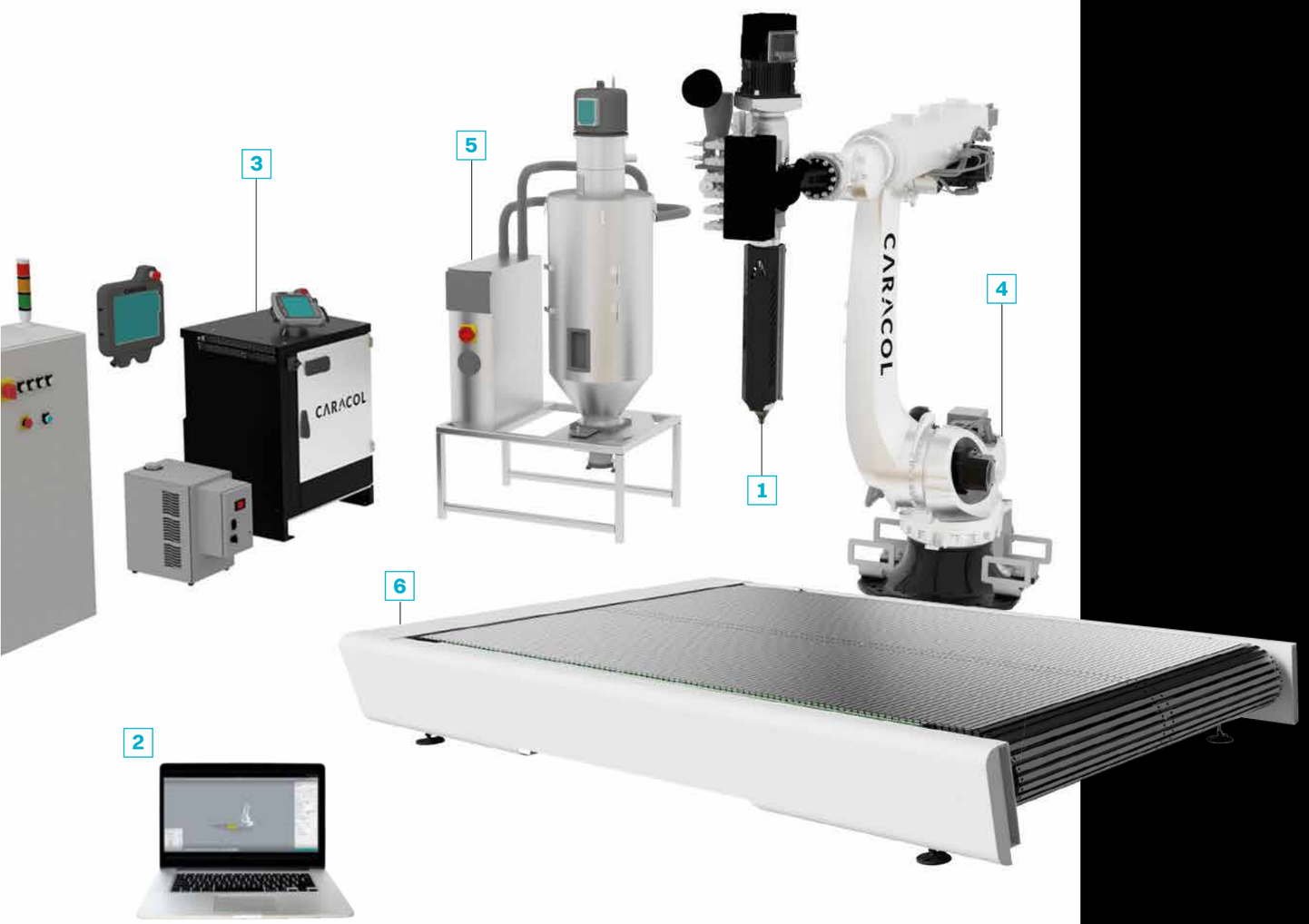
After years 3D printing parts and components alongside industry leaders, the application-first approach is part of our DNA.

With end-users in mind, Caracol develops its LFAM technology platform to expand the potential of additive manufacturing on large, complex, industrial applications. The aim is to meet the most demanding industrial requirements and quality criteria, supporting clients in fully leveraging their machines with an extensive set of services across applications.

- AEROSPACE
- ARCHITECTURE & CONSTRUCTION
- ART & ENTERTAINMENT
- AUTOMOTIVE
- DESIGN & FURNITURE
- ENERGY
- INDUSTRIAL MACHINERY
- MARINE
- RAILWAY
- TOOLING

Modular configuration and customized options

Set up the system around your manufacturing needs, to be flexibly integrated in your shop floor.



1

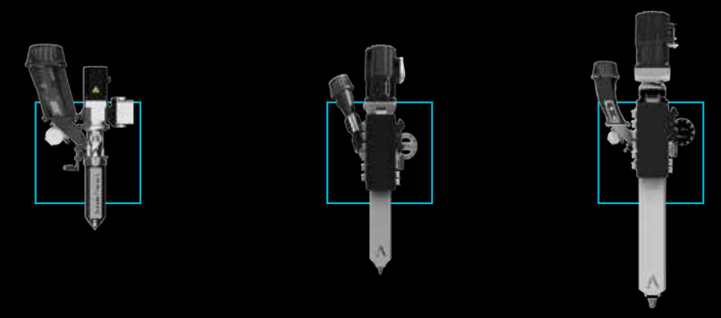
Extruders

Caracol's print heads are engineered to provide the best fit between application needs and performance - from precision, to flexibility, to speed. They process a broad range of thermoplastic composite pellets, from advanced to bio-based or recycled.

High Accuracy (HA)
Light and compact, to provide agility and precision.

High Versatility (HV)
Flexible, to cover a broad range of applications and diverse industrial needs.

High Flow (HF)
Robust, to assure quality and efficiency with an extensive range of materials.



2

Eidos Manufacturing Software suite

Caracol's software suite integrates hardware to enhance full control and flexibility on Heron AM.

Parameters & Path Planning
to easily set the printing parameters, develop and simulate the slicing.

IoT Platform with cloud smart monitoring to ensure full control of the machine, process quality and repeatability.

3

Automation & Control

Our industrial range works with a centralized control unit on multiple end-effectors and user-friendly HMI, to provide smooth modularity and flexibility on Heron AM platforms.

4

Robotic arms

6+ axes industrial robotic kinematics allows Heron AM to 3D print parts with complex geometries and to extend the printing volume according to the arm's reach or by placing the robot on a rail or plinth.

5

Drying & feeding systems

These systems directly and continously supply material throughout the print job, avoiding manual operations, and ensuring pellet humidity and temperature are controlled for best performance and quality.

6

Printing beds

A key element for successful production, each printing bed is developed to fit specific manufacturing needs and is customizable in size.

ALU aluminum frame structure with MDF top panels ensuring stability throughout the job.

STEEL bed with interchangeable top panels (MDF, polymer, glass, ...) providing high rigidity, planarity, and durability across jobs.

AUTOMATIC bed for unmanned part clamping and unloading, guaranteeing solid grip and continuous production of 3D parts.

Enclosures

Perimetral protections and enclosures can be configured around the specific production space and manufacturing needs. This allows to control environmental parameters, ensuring best conditions, safety, process repeatability and quality.

3D printing materials for industrial applications

Our MATERIAL LAB studies thermoplastic composites to guarantee process repeatability on Heron AM, qualfying a broad range of advanced materials daily.

PP Polypropylene

COMPOSITE
PP + 35% Glass Fiber

RECYCLED
PP + 30% Glass Fiber (recycled)

ABS Acrylonitrile Butadiene Styrene

COMPOSITE
ABS + 30% Glass Fiber | ABS + 20% Carbon Fiber

ASA Acrylonitrile Styrene Acrylate

COMPOSITE
ASA + 20% Glass Fiber | ASA natural

PETG Polyethylene Terephthalate Glycol

RECYCLED
PET-G natural | PET-G + 20% Glass Fiber

PC Polycarbonate

COMPOSITE
PC + 20% Carbon Fiber

PEI Polyetherimide

COMPOSITE
PEI + 20% Carbon Fiber

PLA Polylactic Acid

BIOBASED
PLA

TPE High Strength And Flex Elastomer

EVA Elastomer

BIOBASED
BIO EVA

caracol-am.com

Find out Caracol's
global offices
and **partners' network**

HERON AM HL – 2402_01

General Requests: **info@caracol-am.com**
Commercial Requests: **bd@caracol-am.com**

CARACOL