



## **hum3<sup>®</sup> - intelligent heat for composites**

hum3<sup>®</sup> technology is a high power, flexible, controllable heat solution for Automated Fibre Placement (AFP), Automated Tape Laying (ATL), Filament Winding, and other composites applications.

### System Overview

The humm3® flashlamp system consists of a main cabinet, a chiller, cabling and hoses, and a lamp head including a choice of standard quartz light guides.



### Features and Benefits

- Three pulse parameters (energy, frequency, duration) hit target temperatures in a fraction of a second.
- Low safety burden – no requirement for a laser-safe enclosure.
- Broadband spectral output heats a wide variety of materials.
- Small agile lamp head is easy to retrofit onto existing machinery.

### Product Families

humm3® technology is available in a range of product families:

humm3® Discovery	humm3® Enterprise
Ideally suited to research and development	Intended for integration into industrial production
Standard cable lengths up to 10m	Configurable for larger installations
Hardwired External Interface	Hardwired External Interface W. full Profinet integration
Single lamp head	Multi lamp head option

### Industries and Applications

#### Oil and Gas



- ✓ Composite reinforcement
- ✓ Tubes
- ✓ Filament winding for pipes
- ✓ Filament winding for pressure vessels

#### Construction



- ✓ Lightweight preformed structures
- ✓ Complex structures

#### Aerospace



- ✓ Panels
- ✓ Tubes
- ✓ Piping
- ✓ Pressure vessels

#### Automotive



- ✓ Composite reinforcement
- ✓ Tubes
- ✓ Filament winding for pipes
- ✓ Filament winding for pressure vessels