DEFENCE & SECURITY

PROTECTING LIVES, PROTECTING SOVEREIGNTY

GRIFFONHOVERWORK

A member of the Bland Group. Est.1810

WHAT ARE HOVERCRAFT?

Hovercraft are fast amphibious vehicles, that allow quick movement on a range of surfaces, including fast flowing water, mud, and ice.

This remarkable ability is achieved by blowing air underneath the craft, inflating what's known as a skirt, and lifting the hull off the surface.

Thanks to the skirt, the higher pressure air underneath the craft is mostly trapped, keeping the hovercraft in the air. This means that hovercraft requires astronomically less power to stay hovering than a vehicle such as a helicopter.

Hovercraft therefore practically move around by sliding on a high pressure cushion of air.

With a deflated skirt, a hovercraft is safe to float in water thanks to its watertight hull, or to be on land thanks to fitted landing pads.

WHY HOVERCRAFT?

Arguably the biggest strength of hovercraft is their ability to operate in shallow coastal areas, mud flats, ice, swamps, fast flowing rivers, and a host of other challenging environments.

A hovercraft's skirt means that it requires much less lift power than would be expected, while still giving the vehicle many of the benefits of flying. Requiring less power means that fuel consumption is drastically lower, while also allowing for much more payload to be carried than any competing air vehicle.

An underappreciated capability of Hovercraft is their ability to land on unprepared ground and then, if required, rapidly retreat.

Hovercraft can also operate at cruise speed for a long time, anywhere from 5 to 10 hours, before having to refuel.

Despite being water going vehicles, hovercraft retain their excellent mobility on land irrespective of ground traction, being able to fly over many obstacles which would completely hinder the movement of standard ground vehicles. This even includes minefields.

Hovercraft also on average achieve higher speeds than boats of similar sizes.

WHY MILITARY HOVERCRAFT?

Hovercraft can fill a number of key roles inside a military's arsenal. These include:

- Amphibious troop and payload transport
- Patrolling
- Search, Rescue and Evacuation
- Humanitarian aid
- Rapid insertion of elite forces into uncharted environments

Hovercraft can overcome many obstacles that can take up valuable operational time and hinder strategic manoeuvrability. Flying up to 1.3m above debris, Hovercraft can move troops and logistics in littoral operations as well as disaster zones.

Our hovercraft have the capability to be outfitted with both ballistic protection compartments for survivability, as well as weapons and defence systems for the security of the craft and all persons inside. Hover is also maintained even when the skirt is shot or ripped by ballistic fire.

Many obstacles that are present in war and disaster zones such as Improvised Explosive Devices, fast moving flood water, and dangerous underwater/floating debris, can only be overcome with the use of a hovercraft.

WHY GRIFFON?

History

Griffon Hoverwork has been at the forefront of hovercraft development and innovation ever since they were first conceived in the 1950's, through to the modern era. We have supplied over 180 craft to over 40 countries around the world for military, commercial, and lifesaving roles. These include some of the most elite forces across the globe, operating within the most hostile amphibious environments. Our users have:

- Succeeded in active warzones, such as the Royal Marines in Iraq
- Combated insurgency such as the Colombian and Peruvian Navies in the South American jungle
- Conducted security and border operations such as the Indian Coastguard.

Quality

Our craft are built to the latest IMO endorsed codes of practice, and our craft are certified by members of the International Association of Classification Societies. To ensure the greatest possible user wellbeing, we hold current ISO 9001 quality and ISO 18001 safety certification.

Responsibility

Our customers are trusted by millions to protect the lives and sovereignty of their country. We provide our users with the ability to deliver this duty with certainty over the most inaccessible locations and coastlines of the world.

LIGHT LIFT HOVERCRAFT

380TD

Despite a smaller payload than the rest of the range, the 380TD enables its users to manoeuvre exactly where they are needed, while still being capable of reaching high speeds over variable surfaces.

Used for fast mobile response, the 380TD is capable of deployment via road trailer.

SPECIFICATION

Dimensions	(L)	6.8m
	(B)	3.7m
Payload		380kg
Personnel Capacity		4
Speed		25 knots
Endurance		5 hours
Obstacle Clearance		0.33m
Range		100nm

995ED

This electric diesel craft provides precise manoeuvrability and a stable platform for operations with just under 1 tonne of payload for a quick, direct, effective response.

The 995ED provides the functionality of a larger amphibious vehicle in a smaller, more manoeuvrable and easily maintainable package, that can be deployed via road trailer.

SPECIFICATION

Dimensions	(L)	8.6m
	(B)	5.2m
Payload		995kg
Personnel Capacity		8
Speed		30 knots
Endurance		7 hours
Obstacle Clearance		0.45m
Range		154nm

MEDIUM LIFT HOVERCRAFT

2000TD

The most versatile and experienced craft, proven in the most extreme conditions. From the Arctic Circle to the jungles of South America and sandbanks of the Middle East, the 2000TD has operated in every environmental extreme.

Useable in a multitude of roles, from humanitarian response to specialised troop transportation

SPECIFICATION

Dimensions (L)	12.7m
(B)	6.1m
Payload	2.0 tonnes
Personnel Capacity	14
Speed	34 knots
Endurance	10 hours
Obstacle Clearance	0.73m
Range	250nm

2400TD

Built to fulfil the tasks requiring specialised equipment and machinery at hand, without sacrificing it's operational capability, the 2400TD brings power over challenging environments in a size fit for fast, mobile response.

Originating from the 2000TD, the 2400TD was created to provide a platform that could effectively complete more demanding tasks in extreme environments.

SPECIFICATION

Dimensions (L)	13.4m
(B)	6.8m
Payload	2.4 tonnes
Personnel Capacity	17
Speed	35 knots
Endurance	9 hours
Obstacle Clearance	0.70m
Range	225nm

MEDIUM LIFT HOVERCRAFT

8000TD

Continuous development over more than 10 years has resulted in the most proven, versatile, and best selling twin-engine hovercraft in Griffon's range, capable of carrying large payloads, for long times, at high speeds.

Its unique design permits many possible layout options for both cargo and troops, while keeping similar standard hull and machinery installations.

SPECIFICATION

Dimensions (L)	21.7m
(B)	11.3m
Payload	8.0 tonnes
Personnel Capacity	44
Speed	45 knots
Endurance	9 hours
Obstacle Clearance	1.25m
Range	270nm

8100TD

The 8100TD is the larger, 10 tonne carrying "big brother" to the most popular twin engine model in the Griffon Hoverwork range; the 8000TD.

An amphibious, all terrain logistical workhorse. A platform for the protection of lives and sovereignty. The 8100TD ensures tactical asset delivery and deployment for the future proofing of defensive capabilities in evolving environments.

SPECIFICATION

Dimensions (L)	22.5m
(B)	11.0m
Payload	10.0 tonnes
Personnel Capacity	65
Speed	45 knots
Endurance	9 hours
Obstacle Clearance	1.25m
Range	270nm

HEAVY LIFT HOVERCRAFT

BHT

A high payload hovercraft for effective delivery of large volumes of payload over long distances, all on a specialised platform. The BHT connects more of what's needed to beyond the furthest reaches of human development.

BHTs are the largest hovercraft currently in operation from our range; 3 separate models with varying payload capacities are available.

SPECIFICATION

Dimensions (L)	29.3-33.8m
(B)	15.0m
Payload	14-22.5 tonnes
Personnel Capacity	132-182
Speed	45 knots
Endurance	6 hours
Obstacle Clearance	1.10m
Range	210nm

Wyvern LCAC

The Wyvern delivers a fast, amphibious transport solution using the latest technology, with improved reliability and maintainability. Designed to work across the globe, being perfectly adaptable to a customer's operational and national standards

The Wyvern is a completely new class of amphibious transport, with an all-British design, from the innovative skirt to the customisable wheelhouse.

SPECIFICATION

Dimensions (L)	28.0m
(B)	14.6m
Payload	52.5 tonnes
Personnel Capacity	25 Troops
Deck Area	163.8sq.m (21m x 7.8m)
Speed	50 knots
Endurance	4 hours
Obstacle Clearance	1.2m

OUR FACILITIES

We are based on the South Coast of the United Kingdom, our facilities have been built to support the production of large craft, built to internationally recognised standards and certifications.

Our main production facility at Trafalgar Wharf, Portchester hosts over 36,000 sq ft of interior space for multi-project capacity and lean production lines. This main facility is supplemented by dedicated buildings for accommodating the specialised equipment and personnel required to produce all aspects of craft fulfilment.

Skirt Production Facility

Based in Southampton, our skirt shop includes 5,500 sq ft, specialising in the production of Griffon's open loop segment skirt system, developed for durability and stability.

Paint Shop

The paint shop engineers are focused on protectively and aesthetically coating the craft and craft components to specification.

Additional Facilities

We have 2,400 sq ft of warehousing, a design office and both locations have slipway access to water.

INNOVATING FOR THE FUTURE

Griffon Hoverwork strives to ensure we remain at the forefront of maritime innovation. This is accomplished through co-operation with users, dedicated study of craft, and marine engineering.

Craft of the Future

Our craft design process begins and ends with our customer's requirements. These designs are driven by the need for higher payloads, reliability, and future proof technology.

Proven Innovation

Recent developments in craft design by Griffon have occurred in areas from aluminium bonding hull design, to electric diesel propulsion. Our innovations do not remain conceptual, instead they are implemented and proven with real craft, and used in both the commercial and military sectors.

Bespoke Development

Using our knowledge of both aeronautics and maritime operation, we supply bespoke vehicle development, changing operational challenges into operational capabilities. Previously, Griffon even supplied the UK MOD with the PACSCAT landing craft for Over The Horizon assault, capable of carrying a Main Battle Tank.

Electric Drive

The azimuthing ducts and craft propulsion in the 995ED are powered through electric drive axial thrust motors. This adoption of electric drive pushes towards more modern hovercraft design, and allows for improved craft balance, easier maintenance, and weight saving.

Aluminium Bonding

By using an aluminium bonding process to manufacture the 995ED that replaces welding, the overall weight was reduced by 25%, allowing for greater payload capacity. Hull integrity has also been improved with structural distortion kept below 1mm.

Propulsion & Lift

For all of our hovercraft, large diameter, ducted propellers are used. This allows for the propellers to be run at slow blade tip speeds, reducing the craft noise profile. We are starting to use space saving mixed-flow lift fans are used on some of our craft that operate with increased efficiency, and allow for greater general arrangement control.

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