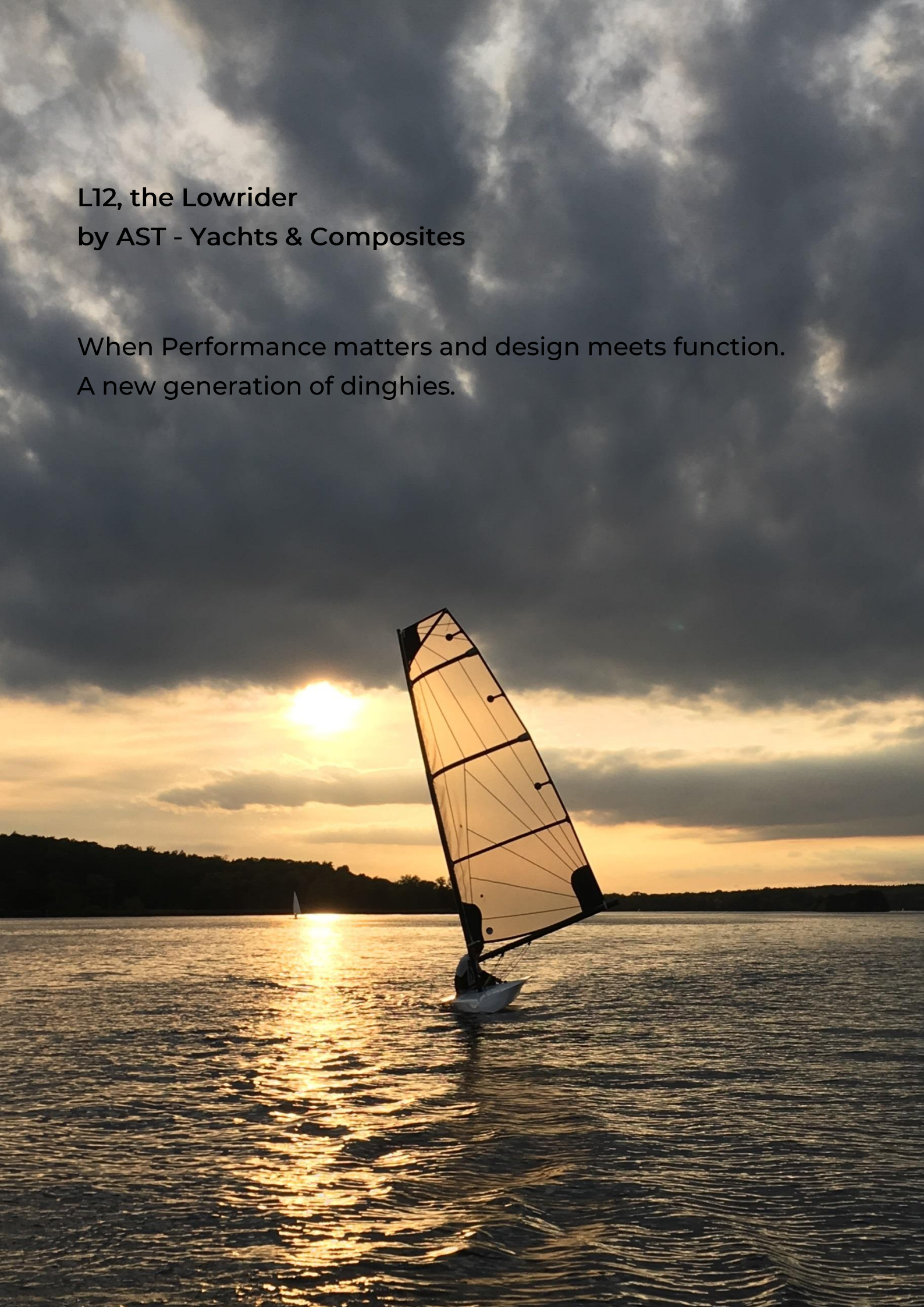


L12, the Lowrider
by AST - Yachts & Composites

When Performance matters and design meets function.
A new generation of dinghies.



We proudly introduce the newest family member: The Foiling Dinghy non-foiling, the L12 Lowrider.

The L12 builds on the very successful design of The Foiling Dinghy with #91 built in October 2019. It's a simple and easy to use dinghy with an outstanding performance. With its wide planing hull it offers sensational and fast downwind rides and still gives you a lot of stability for quick upwind sailing. It's the latest hull design on the dinghy market with a wave piercing bow. The comfortable cockpit with EVA non-skid invites you to enjoy sailing. Thanks to the ergonomic design all controls are within reach. All controls are supplied with high quality hardware and (dyneema) ropes - because performance matters. The powerful rig of the L12 comes with a carbon mast with track and halyard to fit the 7.5m² or 9.5m² North Sails fully-battened laminate sail. Our promise: It only takes 5min to get ready to sail. The L12 is built in carbon reinforced epoxy sandwich applying vacuum infusion technology. This provides the highest quality available on the market and ensures absolute one design, with a hull weight of 30kg. With that weight you can easily transport the boat on your car roof. Order now or cry later.

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Hashtags: #l12 #lowriderdinghy #l12lowrider #astyachts
#advancedsailingtechnologies #dinghy #monohull
#singlehanded #jolle #sailing #composite #voile #voilelegere
#monocoque #dinghysailing

About AST - Yachts & Composites (est. 2017).

We focus on the engineering design and manufacture of high performance boats and components to optimize the performance of a sailing vessel. We are one of the few specialists for foiling in Europe and the specialist in Germany. Section and planform design is paramount. This enables you to obtain the same amount of lift from your appendage, with a fraction of the drag. Surface piercing appendages (i.e. transom hung rudders and hydrofoils) require a close look on ventilation issues to prevent loss of lift. Many sailors know about the problem of a ventilating rudder during the bear away.

With the serial production of The Foiling Dinghy (www.foilingdinghy.com) and now the L12 we prove that we can produce a high quality product to a marketable price in Germany. What we do? We already optimize the production in the design process to save man hours. We apply vacuum infusion technology which is, by the way, no rocket science. Due to the strict regulations in Germany we decided to only use epoxy resin which results in the better quality and durability anyway.

Next to industrial composite parts we are building up to 200 boats per year. For the next years we plan to scale up production for maritime composites, also as contractor for other shipyards.

Boat specifications.

Length:	3.82m
Width:	1.58m
Draft launching:	0.10m
Draft sailing:	0.95m
Hull weight:	30kg
Sail area:	9.5m ² (75kg and above) or 7.5m ² (55 to 75kg)
Crew weight:	55 to 105kg
Fun factor:	massive
Needed experience:	low
Design category:	D
Ready-to-sail price:	14,700€ incl. VAT
Hull construction:	carbon reinforced epoxy glass fibre sandwich
Design & engineering:	Thilo Keller

Ready-to-sail price incl.

hull, foils, control systems (1:8 cunningham (split and cleated on either side deck); 1:16 vang; outhaul 1:4; mainsheet 1:4 with ratchet), Ronstan fittings, rigging including ropes and DECKIT foam decking

rigging consisting of two piece carbon mast, 9.5m² North Sails fully-battened laminate with bag, aluminium boom black hard anodized

Options: trolley, carbon boom, carbon tiller extension, cockpit bag, DECKIT foam decking in black, padded covers (for foils), boat cover, mast cover, transport cover, small sail: 7.5m² North Sails fully-battened laminate with bag, wind indicator, assembly of blocks and ropes, road base trailer, box trailer



Boat features.

Outstanding Performance

- Ultra-light weight is a game changer afloat and ashore
- Feel the exhilaration of this very agile boat
- Our promise: it only takes 5min to get ready to sail, due to the light hull you can launch all by yourself

Hull size

- The hull design builds on the very successful design of The Foiling Dinghy
- Yet small - but still big enough to carry large sailors up to 105kg
- The wide planing hull with its extra wide wings gives a maximum of righting moment even for the lighter sailors and allows a larger sail size. This leads to a much better performance in light and strong winds.
- The hard chined hull provides a high form stability and makes the L12 a pleasure to sail for pros and beginners on performance dinghies. The hull shape is designed to minimize the performance differences between lighter and heavier sailors.
- Also the hull is designed to only change its wetted surface by a minimum with increasing helm weight due to the position of the chines right in the water line.
- The flat hull shape sails like a surf board and is very easy to manoeuvre when sailing in shifty conditions.
- Due to its light weight the L12 accelerates extremely quick in puffs and is a pleasure to sail in lighter winds.
- The wide wings and the chined hull keep the cockpit clear of spray and proved a much dryer ride then conventional dinghies.
- The wide water line allows a huge planning surface what makes the L12 the quickest planing dinghy on the market. Also it allows for upwind planing.
- The light 30kg hull is a pleasure to handle onshore and offshore, to launch and recover, also for small and young sailors.
- 1.6m beam hull with its slender trolley conveniently fits a normal roof-rack and can easily be lifted onto a car due to its light weight.

Inverted bow

- The wave piercing bow allows a much smoother ride upwind and easily cuts through waves, while normal dinghies pitch above them. This reduction in pitch creates a smoother flow on the foils and the sail to optimize the performance. Also the sailed distance through a wave is less than to sail above it.

- When sailing on a hard downwind pitch poling is no longer an issue. The inverted bow just cuts through the water and doesn't stop the boat when running into a wave.
- The inverted bow provides the maximum water line length on a given hull length and maximizes the hull speed.
- The joint of the hull and deck is neatly integrated into the upper chine which provides a much stiffer bonding on a minimum of weight. The saved weight is built into a more durable hull structure to provide a long lasting boat.

Winged design

- The L12 has large wings which run almost parallel aft from the daggerboard for a maximum righting moment wherever the helm sits fore or aft.
- In front of the daggerboard the deck line narrows down to allow a fine bow and the inverted style.
- Close to the transom the wings are not cut off to allow for safe bear aways in strong winds.

Ergonomic cockpit and deck

- We have used, where possible, cambered panels in the deck design to increase stiffness and durability because these are stiffer than flat panels – so minimizing weight. Also cambered surfaces are much more comfortable to sit on than angled flat panels like you know from conventional dinghies.
- All controls are within reach of the helm.
- The open transom easily drains the cockpit.

Mast step

- The mast step has a drainage hole to keep the mast tube clean and dry while storage and to reduce the amount of water carried around while sailing, especially after a capsize.
- The mast foot has a plastic sleeve to eliminate wear of the hull structure.



Construction

- Every aspect of the simple shape has been considered to minimize weight and maximize cost-efficient manufacture in Germany.
- Lightly cambered panels on the chined hull allow construction from normal flat sheets of PVC foam, reducing the weight of the core bond and resin uptake.
- Low surface area reduces weight and material costs
- Simple shape reduces time in the manufacturing process
- Epoxy resin is used for its high strength, extraordinary durability and low water absorption properties.
- Biaxle and unidirectional glass matt is used throughout the hull to optimize the stiffness, compared to woven cloth.
- Carbon fibre is used in all high load areas such as the hull and deck.
- Due to its ultra-light weight and the high elongation at break (shatter resistance) of the epoxy resin system, the L12 has proved to be remarkably durable.
- Yet the boat is so astonishingly light, pulling the boat up the beach on a trolley makes you feel independent.
- Young sailors and small women can lift the L12 onto a roof-rack.

Convenient Two Sails Rig System

- The two piece carbon mast with its track and halyard provide the easiest system on the market to assemble and rig your boat.
- The tracked mast is much easier to step then a sleeved sail-mast combination, especially in stronger winds. Also the track allows for a fully battened sail.
- The alloy track is much longer lasting then plastic tracks especially on fully battened sails.
- With the halyard being cleated down on the mast, lowering the sail on the water becomes an easy job.
- The two sails, the 7.5sqm and the 9.5sqm sail, are designed to fit on the same mast and boom. This eliminates the need of different mast sections like on all other dinghies, what reduces the costs for the sailor and allows a sail change in less than the blink of an eye.
- The fully battened laminate sails work like windsurf sails and show minimum wear over the years, which makes it the longest living sail combination on the market for a long lasting performance.
- The flexible carbon mast allows to flatten the top of the sail, while the big head allows it to twist easily to reduce the healing moment. This makes the big sails easy to sail upwind and power them up downwind.
- The flexible mast also allows a huge cambered sail with lots of power for light wind sailing.

Foils

- The L12 has a vertical daggerboard and rudder for ease of use.
- The daggerboard and rudder are high aspect ratio foils for minimum drag and maximum lift. The tapered plan-form reduces tip losses and maximizes the performance for sensational rides.
- The deep rudder blade is extremely efficient and shows no risk of ventilation, even on very fast downwind rides and hard bear aways.
- The carbon rudderstock and tiller are optimized for high stiffness to create a responsive feeling on the rudder and keep the boat always under control. Also the carbon construction saves weight.
- The lifting rudder offers full steerage when launching in shallow waters and is well supported in all down positions. A chock chord prevents the rudder from lowering itself while launching.
- The daggerboard and rudder have a low drag section which is normally used in high performance boats like the America's Cup.

Everything under control

- Fit-out is simple whilst providing the rig control you need and enabling the boat to be rigged in moments.
- The centreline toe-strap is padded for comfort and adjustable to suit hiking style and sailor size.
- All controls are supplied with high quality hardware and (dyneema) ropes - because performance matters.
- The soft padding from DECKIT provides superior grip without damaging your wet suit or sailing clothes.
- All systems are designed to work easily and be rigged within seconds, like the custom boat cover which has no straps to tie it down.



Manufacturer and main distributor

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