

# PASSION & PERFECTION

Carlo Riva has designed and built the most beautiful and elegant motor boats that have ever sailed lakes and the sea. The son of a boat builder and racer, he took over the shipyard in 1949. Under the influence of the American brand Chris Craft, he created classic runabouts that made the name RIVA world famous in the late 50s, 60s and 70s.







# We're just Cruisin'

The Riva Ariston from 1958 has been completely restored with great attention to detail. Deck, sides, floor, chrome, upholstery and 20 layers of varnish make the Ariston shine like the first day.



#### MAGNIFICENT REVOLUTION

Carlo Riva fought quite hard with his father Serafino to actually build the boats he envisioned. Carlo's concept of using preformed plywood to produce the hulls was a revolution in boat building at the time. Something along the lines of building all electric cars today. History proved him right. These boats, after all, created the luxury brand RIVA in the first place.







## Elegance and Lines

If you look alongside the hull you'll notice the unmatched lines of the concave bow blend into the round barrel back. The proportions of the Ariston are perfectly balanced and unsurpassed by any other boat. It's the Best of the Best.

#### Balance and Trim

Replacing a V8 engine and gasoline tank calls for a precise balance of the trim and waterline. Unlike the gasoline tank, which get's lighter the longer you ride, the batteries weigh the same regardless of state of charge. Once it's set up nicely it will stay that way always.



#### Restoring a Legacy

How do you go about restoring a beauty like the Ariston #208? It takes attitude. The same attitude it's creator strove for his entire life. Perfection. While standard restorations cover the deck and bottom, we made sure the biggest surface of the Ariston, it's hull, get's the same attention.



#### CLASSIC & HIGH TECH

Once the V8 motor and tank were cleared out of the hull, the available space was measured and recreated in CAD-3D-geometry. The electric drive train along with the batteries and peripherals were designed and placed to best fit the space. Like in the original boat the weight of the drive train rests on the two stringers that run the length of the boat. The positioning of the battery, representing the bulk of the weight, was carefully chosen for the correct trim.





#### RESPECT THE CLASSIC

The Ariston is all about look & feel. Even though the original Stewart Warner Instruments show meaningful data of the electric drive train, nothing in your field of view dimishes the haptics of the original cockpit. The gauges too are refurbished and the look is 100% the way they looked in 1958. Respect the Classic is the guiding motto that transcends throughout the recreation of the Ariston.

### SUBTLE YET CLASSIC

The original colour for the 2-tone upholstery in 1958 was yellow and a chequered pattern. We settled for the subdued yet classic ocean blue for the seats. On a lake this is a perfect fit and emphasizes the beauty of the mahogany deck and interior.



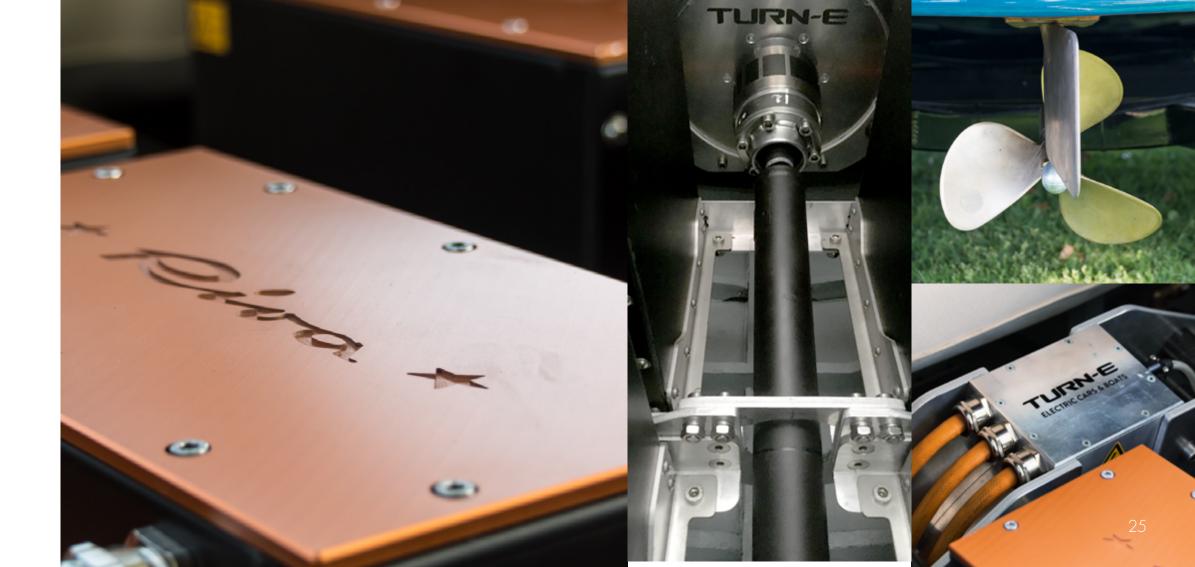


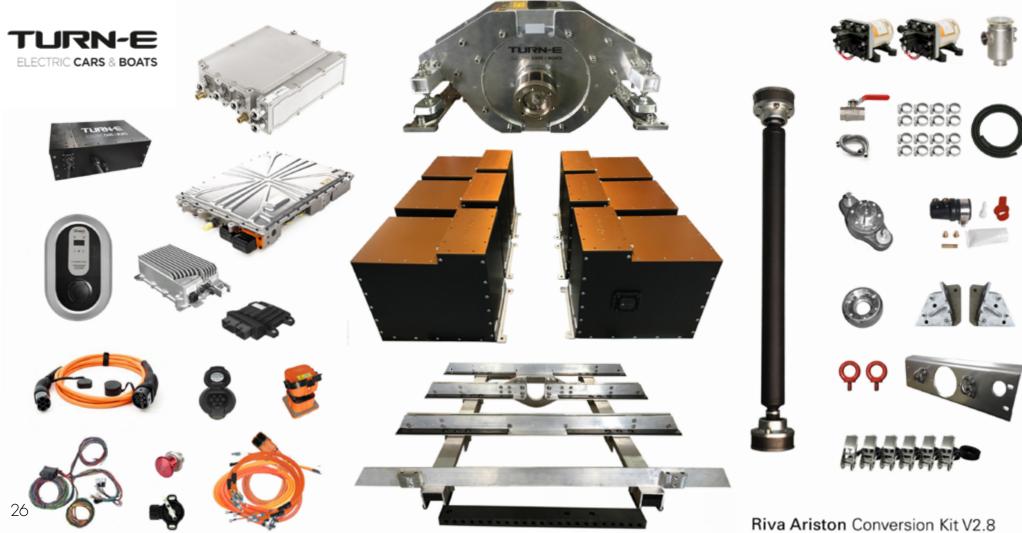
#### LEGACY, THE NEXT STEP

To create the RIVA brand Carlo revolutionized the way wooden boats were built. Up-to-date technology of the time was used to make it happen. American made V8 motors propelled the boats to new levels of performance. What would Carlo Riva use today as the paradigm shift to electric drive is in full swing? We believe he would stay true to his creativity and embrace new technology to make his boats even better. The Ariston #208 is the attempt to do just that. Take the legacy to the next step.

#### THE ELECTRIC DRIVE

The following pages illustrate the carefully chosen electric components to match the original intent of the Ariston in being the Best of the Best in electric runabouts. Efficiency is best shown by the Axial-Flux motor weighing just 45kg while besting the power and torque of the 350kg V8 engine. Technology moved on since the 50s after all.



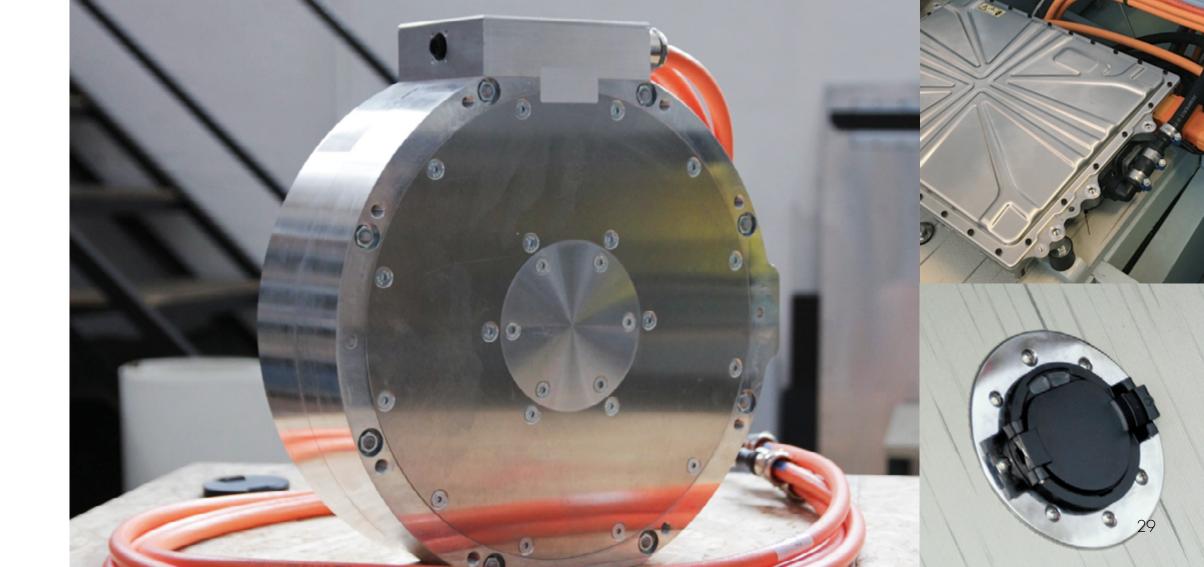


#### THE CONVERSION KIT

The electric drive in the Ariston is just as simple as the gasoline drive it replaces. The technology advancement lies within the parts that make the kit. An electric motor has only two moving parts compared to the V8 that uses more than 700! The art is in the choosing of components to make the conversion kit. We kept true to the original performance and handling of the boat. In this there is no room for compromises.

#### AXIAL-FLUX-MOTOR

The EVO AF140 Axial-Flux-Motor has very similar characteristics compared to the original V8 engine. It revs up to 5.000 RPM, with 3.200 RPM being the sweet spot of highest power and torque. However, with a diameter of 380mm and a width of only 110mm it's very unlike the original motor in size and weight.





#### Safe and Hidden

Not until you open the lids of the motor bay, will you notice the change of the drive train. A spectacular array of six beautifully designed battery enclosures are mounted to the stringers of the boat by a light but strong aluminium frame. All high voltage components are confined and isolated in the engine bay. The motor itself sits on hydro mounts and connects to the prop through a balanced drive shaft.



#### Beauty in the Detail

What makes this boats so special, apart from being an electric boat, is the incredible attention to even the smallest details in the restoration process. It takes time, passion and dedication to engulf yourself in fabrics of this boat to recreate it's former appearance. Next to the wood, all chrome and upholstery, the instruments and wire harness were restored to original specification. With the study of Carlo Riva's boats comes the mind set and respect for his creation. The quintessence is manifested in the Ariston #208.





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#### HISTORY OF COPACABANA

Ariston #208 was built on the shores of Lago d'Iseo in 1958. #208 was named «Copacabana» and registered with the RIVA Club France. She's filed in the Riva Historical Registry RHS. From France the boat was moved to Salò on Lago di Garda. In 2015 we found the boat in the vaults of RIVA specialist Archangeli to give it a new life.

### Cruisin' Revised

The Ariston #208 has seen some interesting times over the years. Starting life on Lago d'Iseo, moving on the Côte d'Azur in the high time of Hollywood jet-set. She's been restored from the ground up and the first Ariston ever to receive the drive train of the future. She makes a very attractive and desirable boat to ride on lakes all over the world. There's no better combination of style meets future.



The Riva Ariston, built in 1958, has been completely restored and fitted with a new electric power unit from TURN-E in Munich—an ingenious combination. This is how the Riva Ariston Electric was born. A modern power unit with lithium batteries powers the sporty runabout from Sarnico on Lake d'Iseo. The aim was to replace the original 185 hp petrol engine and even surpass its performance-and we succeeded. The gross weight of the Ariston Electric is 1.440 kg slightly less than the fully fuelled original. The boat is perfectly balanced and lies well in the water.

The range is about 50-60 km in medium planing speed. Chrome, seats, fittings and cockpit interior were also extensively restored. The Ariston

received a new mahogany deck and a new floor.

The sides of the hull were restored in original style by the Riva specialist Frackmann in Aichach near Munich. The result is impressive. The grain of the mahogany resembles a flip-flop paint that changes colour depending on the sunlight. Our boat builder Beni Hoefle on Lake Ammersee has painted the Riva with countless layers of clear varnish and then polished it to high gloss.

The electric drive proved to be extremely powerful in the test runs, briefly developing approx.

170 kW of peak power. The 95 kWh batteries provide a robust basis for good range and extensive touring, even on larger lakes. Top speed was measured with GPS at approx. 62 km/h.

The Ariston with its ingenious hull is great on the water and offers a seamless transition from displacement to planing. The liquid-cooled 22 kW onboard-charger takes 5 hours to recharge the empty battery.

The large cockpit offers space for 6 people. The equipment of the Ariston is extremely robust and very comfortable. The driver's seat can be folded up, so the driver can sit or stand in an elevated position for a better overview. The bench seat folds down into a large reclining area. The tinted windscreen, which still has the rare original glass, offers good protection from the wind.

Technical Data					
Producer	Riva / Sarnico, Italia				
Model	Ariston				
Year	1958				
Serial No.	208				
Length / Width	6.520 mm / 2.160 mm				
Draught	0,47 m				
Weight	1.440 kg				
Motor	Axial-Flux-PM-Motor, liquid cooled				
Battery	94 kWh Lithium, 650 V nominal				
Power	max. 170 kW (rated power 140 kW)				
Charger	Onboard, 22 kW, liquid cooled				
Range	Approx. 50-60 km in planing				
Seats	6				

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#### Original Equipment:

- + Hull in mahogany, completely restored, much original substance preserved.
- + Deck, floor and sides newly made
- + Deck fittings, rubbing strakes and position lamps of chrome
- + swivelling searchlight
- + Window frames made of chrome with original safety glass, tinted
- + Steering wheel made of bakelite with chrome trim ring
- + Propeller, shaft block and rudder made of brass
- + Comfort steering with steering gear and linkage
- + Gear lever FWD/REV made of chrome
- + Floor covering non-slip, original textile, floor inside new
- + Seat upholstery, imitation leather, quilted, original, new
- + Seat benches completely restored and newly sprung
- + Flag holder at the stern
- + Water ski pole
- + Bathing ladder
- + Boat hook
- + Convertible top restored (still uncovered)

#### Electric drive / New technology:

- + EVO AF-140 synchronous motor with liquid cooling
- + TM4 motor controller with liquid cooling
- + 95 kWh, Li-battery in aluminium boxes IP65
- + Battery management system with high voltage isolation measurement
- + Battery and drive safety devices
- + 220 V, 22 kW onboard charger, liquid-cooled with Type-2 charging socket
- + 2 water pumps, whisper mode, redundant
- + Engine hydraulically mounted, all components with vibration dampers
- + Aquadrive cardan shaft with thrust bearing and vibration damper
- + Original pointer instruments [rpm] [L/min] [A] [°C] [%] digitally controlled

Restoration and Conversion					
Project duration	2016 until 2018				
Integration Electric Drive	2018 / 2019				
Initial idea and concept	Bernhard Adelsberger O.C., Christian von Hösslin TURN-E				
Woodwork, carpentry, varnishing	Bootsbau Hoefle, Raisting / DE				
Hull restoration	Riva Frackmann, Aichach-Munich / DE				
System integration electric drive:	TURN-E, Munich / DE				
Restoration Instrumentation:	Morosini, Sarnico / Italia				
Galvanic, Chrome:	Galvanik Jörg Spindler, Ansfelden, AT				
Upholstery:	Sitz Design Pogacnik, Salzburg, AT				
Sale	TURN-E, Munich / DE				
Marketing	Bernhard Adelsberger O.C., Salzburg, AT				

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