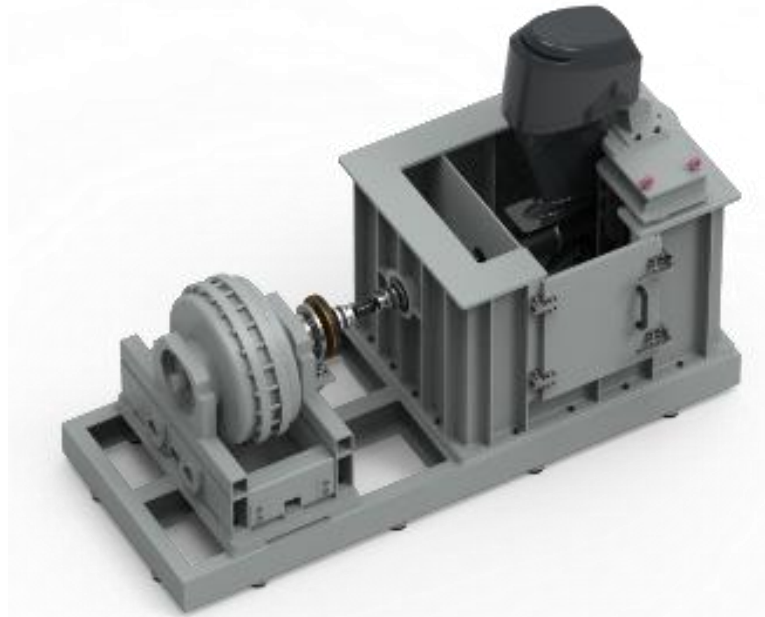




~Advanced Test System and Test Bench Engineering Professional~

Tokyo Plant Co., Ltd.



Introduction

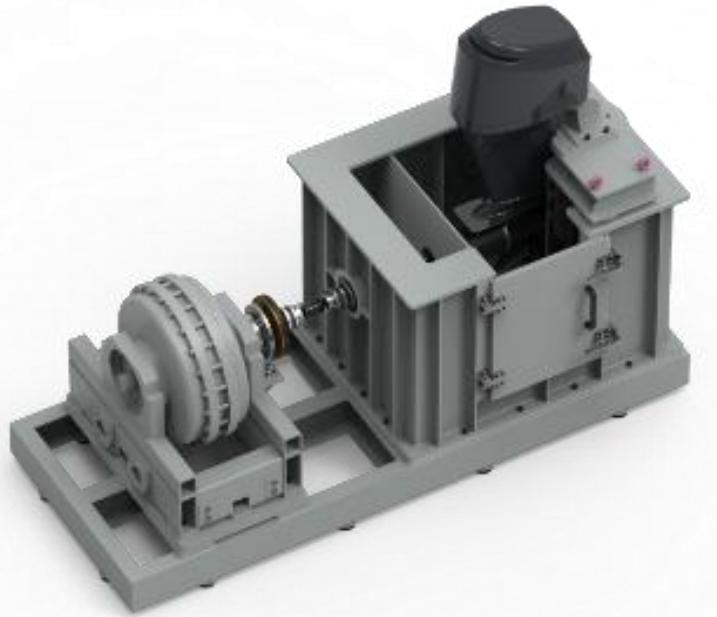
Outboard engine test bench

Update 2026.08.14

Copy right Tokyo plant Co.,Ltd.@2026

» Outboard engine test bench

Our outboard-engine testing systems offer high precision and excellent durability, and are widely adopted by domestic outboard-motor manufacturers and educational institutions.



» Feature

- ✓ The propeller shaft is mechanically coupled to the dynamometer, and load testing is performed with the outboard motor submerged in a water tank.
- ✓ Enables evaluation of the drive-train section consisting only of the vertical shaft and bevel gears.
- ✓ Axial load is applied to simulate propulsion force.
- ✓ The top cowling area of the outboard motor—exposed above the water surface—is temperature-controlled in a temperature chamber, enabling cold-start testing after low-temperature soaking.
- ✓ Evaluation of the power supply for the test inverter and power-meter measurement is also supported.

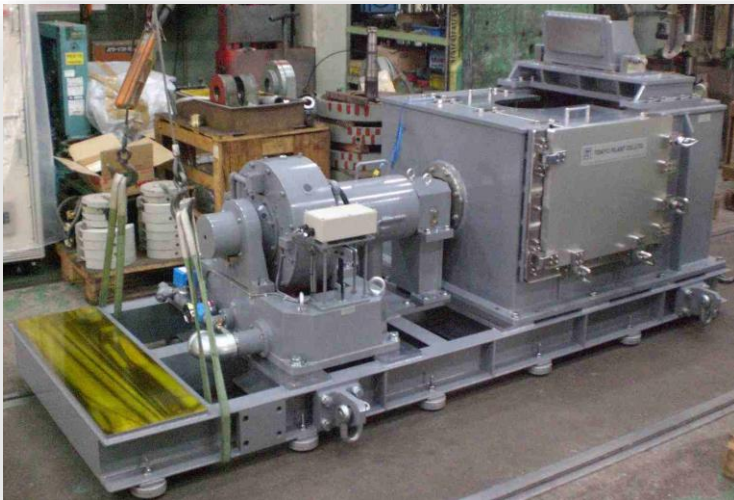
» Outboard motor test bench



» Scope of the project

- ✓ Control and measurement system (PLC)
- ✓ AC dynamometer
- ✓ Drive unit
- ✓ Environmental temperature chamber
- ✓ Spindle unit
- ✓ Frame
- ✓ Water tank

» Outboard engine test bench



» Scope of the project

- ✓ Eddy-Current Dynamometer (Load Unit)
- ✓ Dynamometer Controller
- ✓ Water Tank for Outboard-engine
- ✓ Dummy Transom Board
- ✓ Slide-Type Frame

» Outboard engine test stand



» Feature

- ✓ Because the system is portable, a rail base plate is not required.
- ✓ A single water tank can be connected to multiple types of dynamometers.
(in accordance with the engine and shaft-coupling specifications).
- ✓ It can be easily installed alongside other test cells, enabling significant reduction in capital investment by minimizing the number of test cells required.
- ✓ The water tank and mounting frame can be custom-designed according to your requirements.
- ✓ Outboard engines can be set up easily, allowing substantial reduction in test preparation and changeover time.

We will participate in your project from the planning phase onward.

We provide seamless support throughout every stage — from creating requirement specifications and design documents, to product design, manufacturing, commissioning, and delivery. Rest assured, we also provide prompt and reliable after-sales service following delivery.

Planning



Please let us know your requirements, specifications, and requests. We can provide a variety of proposals based on your budget and testing needs.

We will also align with the customer's project goals to ensure successful achievement. A non-disclosure agreement will be concluded if necessary.

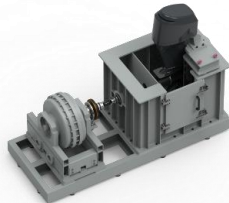
Contract



After the product manufacturing specifications, service requirements, definitions, and project amount are finalized, the contracting process will begin.

We will work closely with the customer to ensure that the project is executed in accordance with the agreed schedule.

Design, production



We will proceed with product manufacturing under strict delivery and safety control, ensuring compliance with the customer's defined requirements, functionality, and quality standards.

Also, conducting Pre-commissioning at our test bench.

Delivery Civil work



After packing, we deliver the products with the utmost care to ensure that they remain secure and intact during transportation.

We also carry out civil engineering work such as installation, piping, and wiring as requested by the customer.

Commissioning Acceptance



System configuration is carried out, followed by reproducible testing and final adjustments at the customer's test bench.

After service

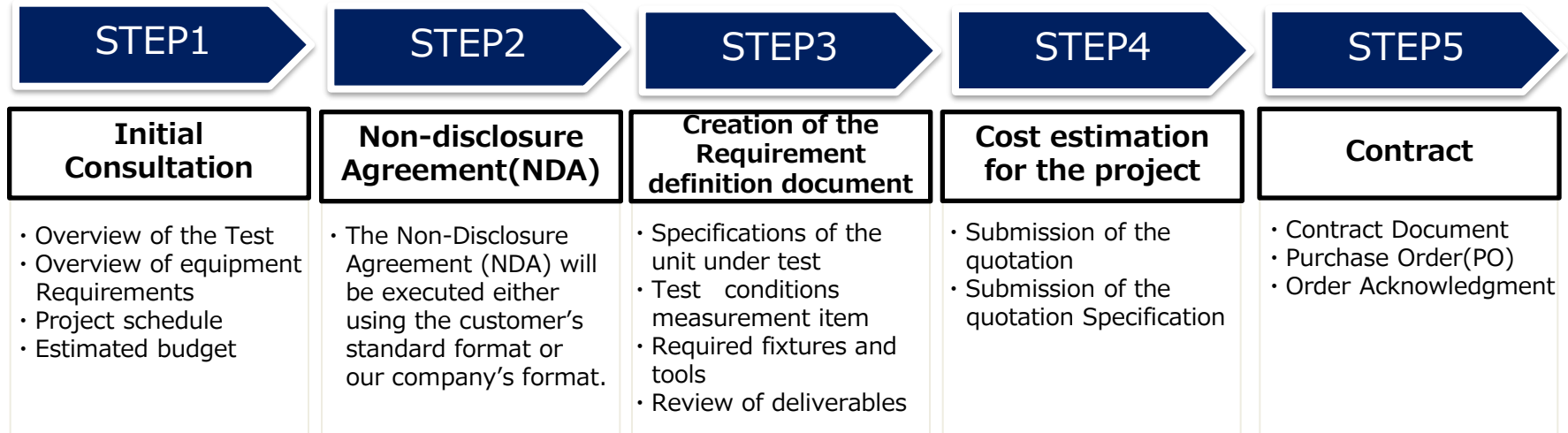


We provide long-term support even after product delivery.

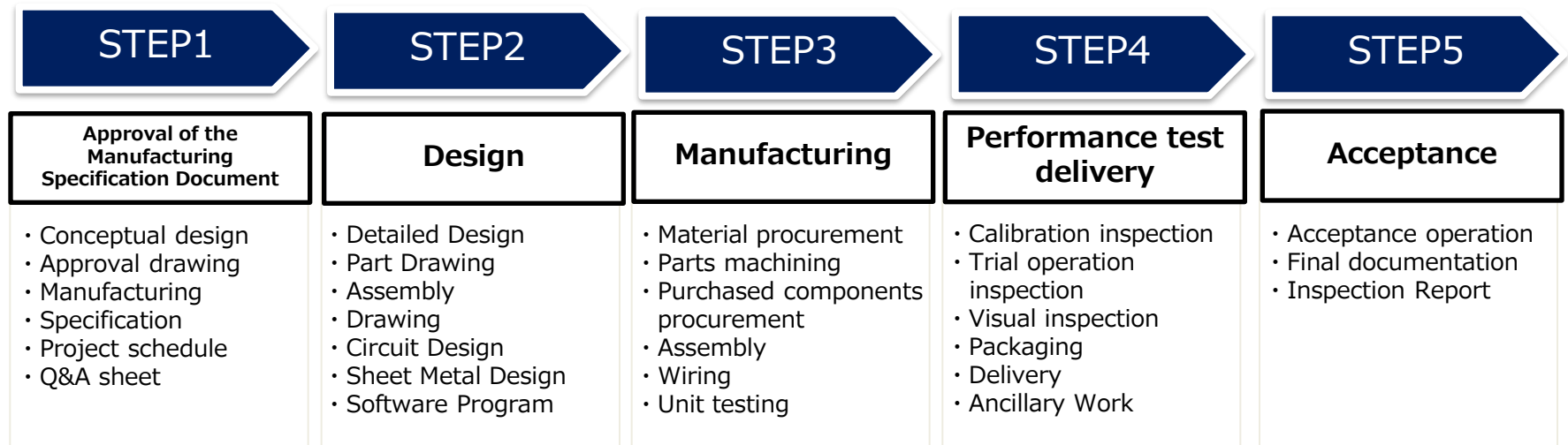
We offer prompt assistance anywhere as needed.

In addition, we propose product upgrades and maintenance planning to ensure continued optimal performance.

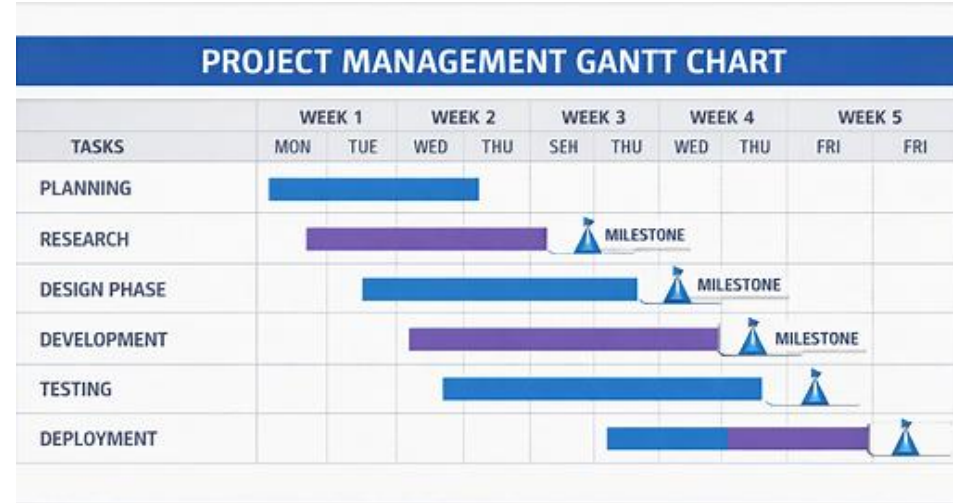
» Process from initial inquiry to contract finalization



» Process from project initiation to completion



» Project execution framework



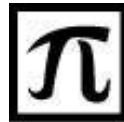
✓Project Leader and Assigned Members

We assign a Project Leader (responsible person) and project members according to the project's scale and type—whether it is a new installation, repair work, or on-site inspection.

✓Project Management

With clearly defined requirements and a firm commitment to achieving QCD (Quality, Cost, Delivery), we approach every project with the same passion as our customers and work sincerely toward its success.





Since 1948



Contact Information

Tokyo Plant Co., Ltd. – Sales Department

515-5 Miyazawa-cho, Akishima, Tokyo 196-0024, Japan

TEL: +81-42-546-6500 FAX : +81-42-546-6600

URL : www.tokyo-plant.co.jp

E-mail: sales@tokyo-plant.co.jp