

Construction and Terms of Reference
for the exclusive floating Restaurant

EuroMbao Ltd.
Wood Construction

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Floating restaurant
Construction and equipment description
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BUILDING DESCRIPTION

The design and execution of your floating restaurant corresponds to the current D standards and DIB guidelines, as well as the German shipping law according to the version dated 13.02.2013
When planning and defining the construction and superstructures, as well as materials and built-in parts, great importance was attached to ecological aspects using renewable raw materials and low emissions. The building physics values achieved thereby largely correspond to the standards of a low-energy house and thus enable year-round living on the water with the best indoor climate conditions.
Construction Modular construction in CLT solid wood panels from KLH
Ponton Special wooden construction with coating
CLT facade with insulation and wooden cladding
Roof CLT flat roof with foil covering

Restaurant area on 2 levels, terrace on the ground floor and 1st floor
Total area about 720.00 m²
Total outdoor area approx. 105.00 m² roof area total 220.00 m²
Ponton: length 24.00 m width 15.00 m

Rooms:

Ground floor

Anteroom open space and landing stage

Lift

Kitchen

Bar counter

Dining room

Lounge for workers

Equipment room

Open space

First floor

Open space

Toilett

Stairway

Lift

Bar counter

Dining room

Shower workers

Changing room workers

Open space

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1. CONSTRUCTION

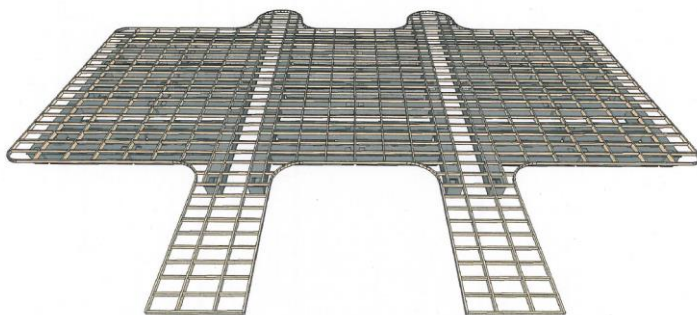
1.1 pontoon / float

In recent years, wood as a basic raw material for the construction of floating systems has been replaced by other materials such as steel, aluminum, concrete and various plastics. Due to the rise in oil and energy prices and the scarcity of raw materials, renewable raw materials and new technical developments are increasingly being used. Sustainable use of the environment and the available resources is an important aspect in order to use alternative options.

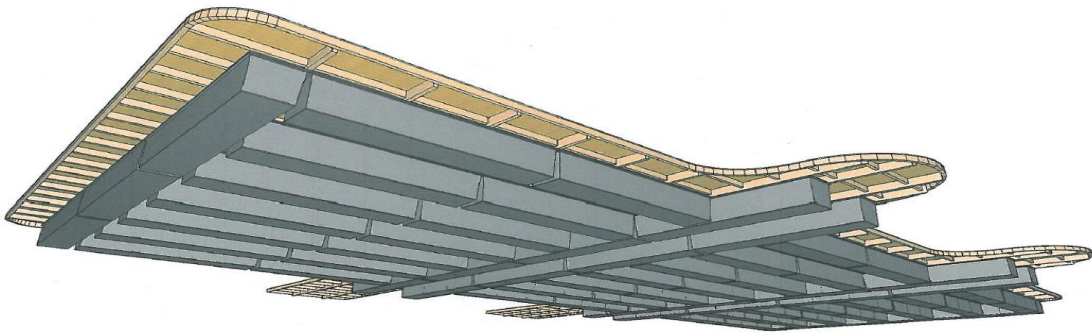
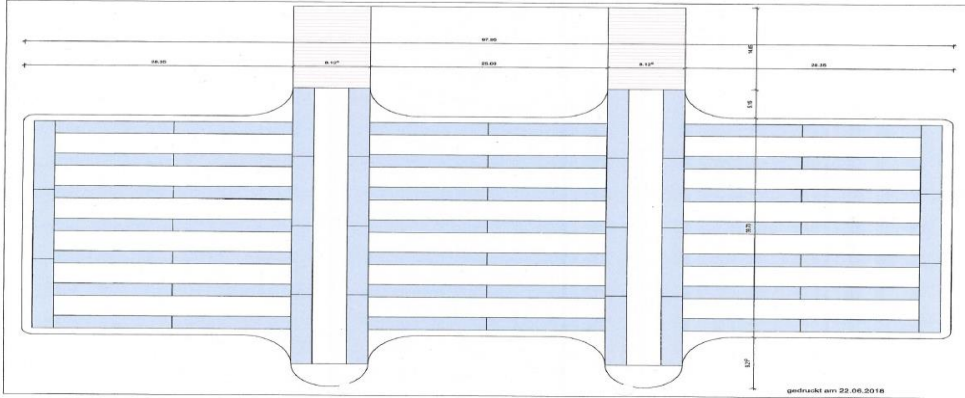
The development of an innovative pontoon system made of cross-plywood and coated with environmentally friendly materials is the solution. Ecological and economic aspects are the greatest advantage over other pontoon systems on the market. The prefabrication of the individual pontoon plates and the coating in the factory guarantee precise processing and a high level of quality. Transport is much cheaper than with fully assembled conventional pontoon systems. On-site assembly can also be carried out at a very low cost. Another advantage of this pontoon system is its almost fully usable interior, since this wooden pontoon system does not require any stiffening elements or separate chambers. With more storage and living space in the pontoon, more living space is added to the actual house.

The wooden pontoon consists of cross plywood. In order to ensure a stable construction, the statics of the floats are carried out in accordance with the regulations of Germanischer Lloyd.

The coating system for the wooden pontoon meets the highest standards in terms of durability, tightness, freedom from maintenance, cost optimization and ecological criteria. The PU film coating is mainly used to seal water basins, sewage treatment plants, bridges and underground garages. After priming the material, a long-lasting film seal is sprayed on. The film is then sealed with a UV-protected paint. The tightness and behavior of film and wood in water are excellent. The material is approved by the EU and environmentally friendly.



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1.2 supporting structure

The entire supporting structure is made of modular CLT from solid CLT panels.

For this purpose, floor, wall and ceiling elements become transportable, floor-to-ceiling example images at the factory

Modules assembled and assembled after completion of the factory prefabrication, non-positively and airtightly connected to each other.

The structure of the CLT panels consists of glued solid wood panels, which are cross-glued together and therefore ideally suited for load-bearing applications. The material has all building inspectorate and technical approvals and, thanks to the use of local woods, resource-saving production and processing, meets the highest ecological standards.

Floor onewood

CLT CLT plywood top 120mm in visible quality underside

Walls Exterior and interior walls made of 100mm CLT cross-laminated spruce in visible quality on one side

Ceiling CLT cross-laminated spruce 100mm in visible quality

A 30cm high all-round parapet made of 100mm CLT cross-laminated spruce is mounted on the top floor ceiling for the roof structure

Stairs CLT cross laminated spruce 100mm in visible quality, self-supporting step formation



Onewood

Flooring is an important component of every interior space and timber has always been a popular choice for flooring due to its natural grains and color.

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Onewood façade

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Termite Resistant

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Water Resistant

ONEWOOD Flooring is naturally water resistant and suitable for bathroom and kitchen area usage.



Class 1 Fire Retardant

ONEWOOD's fiber has been impregnated with fire retardant formula giving its low flame spread property which can be considered for spaces with Class 1 fire rated requirements.



Suitable for interior

ONEWOOD has low TVOC emission. It is certified as a green product under the Singapore Green Building Council (SGBC) and has attained the Green Label in Singapore.



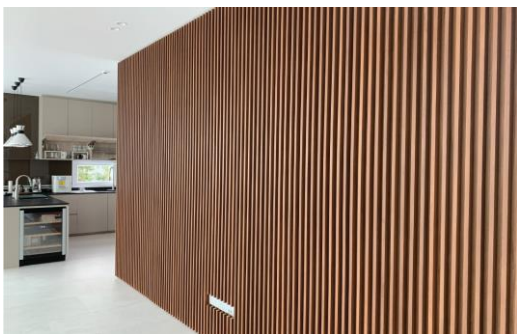
Suitable for High Traffic

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Reuse and Refurbish

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1.3 facade

Curtain-ventilated facade, consisting of:

Onewood, thickness 12mm, visibly screwed onto a wooden substructure, with black tape, including corner and edge profiles

Color of facade panels of your choice

External wall insulation, Inthermo HFD-Exterior Compact panel 160mm, including wooden substructure

2 x strips 90x40x1185, special fleece coating open to diffusion on both sides

Laibungsflächen

The materials used are impact and water resistant and resistant to mold and algae.

1.4 roof

Flat roof as warm roof with foil covering over the ground floor and attic with the following structure:

Vapor barrier over a CLT cross-plywood floor

separation fleece

Roof sealing film mechanically fixed, product Sikaplan or similar

Roof covering onewood

Edge formation with foil composite sheets, as well as connection and end sheets, integration of roof ducts

Drainage using selective gargoyles. The rainwater is discharged directly into the surrounding water at the respective location.

Sheets in powder-coated aluminum in the color of your choice according to the collection.

1.5 windows

Wooden windows made of solid, multi-layer glued wood with the best static properties, optimal sound and heat insulation (UW approx. $0.77 \text{ W} / \text{m}^2\text{K}$).

2 sealing levels, increased burglary protection through security striker wood type spruce with naturally oiled surface.

Thermal protection glass with triple glazing, view fittings in aluminum, stainless steel look. Thermally decoupled and easy-to-clean drainage rails in natural anodized aluminum

Window sizes according to planning.



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1.6 Entrance door

Front door in a frameless look with double sealing system for high sound insulation and best tightness. 90mm thick frame and sash made of innovative material combination consisting of solid wood core, middle layer made of thermal foam and top layer made of wood with integrated vapor barrier. Base plate in anodized aluminum.

Wood type spruce with glazed surface according to standard color.

Barrier-free, thermally separated threshold in permanently anodized aluminum.

Increased security through solid door leaf construction and standard 5-point locking with 2 bolts + 2 swivel hooks, locking parts concealed in the frame

Three massive 3-dimensional adjustable hinges

Fitting combination of handle bar on the outside and lever handle on the inside

Passage light width 220 x height 220cm double wing



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3. TECHNOLOGY

3.1 Electrical installation

The electrical installations are carried out according to the currently applicable regulations in accordance with DVE and EVU.

The energy provider is the solar system on the roof with storage medium and a power generator in the technical room.

The installation in the house takes place in the floor structure as well as in the provided and factory-installed cable shafts and ducts. The cabling and connections of the modules are pre-assembled in the factory ready to plug in and connected to one another in the course of final assembly, the system is wired up and put into operation.

Switch / socket range as a standard model from well-known manufacturers in white.



3.1.1 Supply / distribution

Supply line and meter consisting of supply cable and earthing approx. 15 meters, free-standing meter standard distributor EVN with base including overvoltage protection, internals, fuses and outlets
Sub-distributor in the house consisting of small distributor UP, 2 residual current circuit breakers, 7 circuits 13 / 16A 1 + N, 1 circuit 16A 3pol.

3.1.2 Ground and first floor electrical installation

See electrical planning

3.1.5 Lightning protection / earthing

Lightning protection system in accordance with EN 8049, as well as partially insulated lightning protection for satellite systems, traps and arresters, connecting cables, terminals and branches

3.1.2 Electrical installation on the ground floor

All external switches and sockets are waterproof.

Open spaces docking area

Entrance area with intercom 2 ceilings / wall outlet

2 buttons

2 motion detectors FR 180 degrees

1 bell 230V

1 door release outlet

1 intercom outlet outside

1 intercom outlet inside

1 SET Audio intercom (single-family house)

Anteroom 1 ceiling / wall outlet

3 buttons

2 single sockets

Workers room 1 ceiling / wall outlet

1 button

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2 single sockets
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Kitchen 2 ceilings / wall outlet
2 toggle switches
10 single socket
5 double socket
5 3-way socket
1 antenna outlet SAT
4 power sockets

Lift for food 1 ceiling / wall outlet
2 off switches
2 double sockets

Technology 3 ceilings / wall outlet
2 buttons
10 single socket
5 double socket
1 outlet for fan with NLR
6 power sockets
5 3-way socket
Storage medium for solar power with system
power generator

Bar 5 ceilings / wall outlet
4 changeover switches
5 single socket
5 double socket
5 3-way socket
2 power sockets

Restaurant 15 ceilings / wall outlet
5 changeover switches
15 socket double
5 3-way socket
3 antenna outlet SAT
1 room thermostat outlet / controller connection

Open space at the back
Terrace 3 ceilings / wall outlet
2 off switches
5 double socket
5 3-way socket

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3.1.3 Electrical installation, upper floor

Open spaces over the docking area
Entrance area with intercom 4 ceilings / wall outlet
3 buttons
2 motion detectors FR 180 degrees
1 bell 230V
1 door release outlet
1 intercom outlet outside
1 intercom outlet inside
1 SET Audio intercom (single-family house)
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Open spaces over docking area
Entrance area with intercom 2 ceilings / wall outlet
2 buttons
2 motion detectors FR 180 degrees
1 bell 230V
1 door release outlet
1 intercom outlet outside
1 intercom outlet inside
1 SET Audio intercom (single-family house)
5 single socket
5 double socket

Toilets men 5 ceilings / wall outlet
3 buttons
5 double socket

Toilets women 5 ceilings / wall outlet
3 buttons
5 double socket

Hallway / stairs 3 ceilings / wall outlet
3 buttons
2 single sockets
2 double sockets

Technology 3 ceilings / wall outlet
2 buttons
5 single socket
5 double socket
1 outlet for fan with NLR
4 power sockets
3 3-way socket

Bar 3 ceilings / wall outlet
4 changeover switches
5 single socket
4 double socket
2 3-way socket
1 power sockets

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Restaurant 15 ceilings / wall outlet
5 changeover switches
15 socket double
5 3-way socket
3 antenna outlet SAT
1 room thermostat outlet / controller connection

Open space at the back
Terrace 3 ceilings / wall outlet
2 off switches
5 double socket
5 3-way socket

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3.1.5 Lightning protection / earthing

Lightning protection system according to EN 8049, as well as partially insulated lightning protection for satellite systems, traps and arresters, connecting cables, terminals and branches

3.2 HVAC installation

3.2.1 Heating system

Heating with infrared:

A heater with infrared is supplied, which is characterized in that

- the system is powered by electrical current (230V / 50 Hz) with particularly low power consumption;
- the system has a particularly high effectiveness, which is defined by the high proportion of the energy given off as thermal radiation in relation to the electrical energy absorbed;
- Has carbon fiber strands and a ceramic front surface for heating reasons;
- The heat waves propagate in the infrared C wave range in the range of 5–15 µm;
- the system has evidence that it is not a direct electrical resistance heater;
- the system has an adapted control system, which has night reduction, temperature and time control and can be programmed according to different daily and weekly programs as well as vacation absences;
- the control system can be easily retrofitted and expanded as desired and preferably has an extremely energy-saving and highly biologically compatible radio system;
- all devices have a valid TÜV type test according to relevant standards;
- the system is chemically neutral in the event of a fire;
- has the protection class IP44;
- has a high robustness and scratch resistance of the surface;
- is very easy to maintain from a hygienic point of view;
- all surfaces are corrosion-resistant and durable;
- Color at customer's choice similar to RAL 9016, 3020, 6024, 5010, 9005, 6019 and 1015.

Technical specifications:

IR panels for surface mounting on wall and. Ceiling and installation in a built-in box surface: ceramic, connected load: 125 - 750 W, protection class: IP 44, size: e.g. 1206x746 mm IR heating panel in the C radiation range, surface temperature 85 ° C

Mechanical structure: highly scratch-resistant industrial ceramics with heating elements made of carbon fiber wires, stainless steel rear wall

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3.2.2 Sanitary facility

The supply and disposal of drinking water and wastewater is brought in from the water tanks in the technical area via pressure-tight connections.

Hot water heat pump

The system is a heat pump with a hot water tank. For example, by Viessmann. The primary task of the system is to heat the process water. The ideal installation of the heat pump is determined by the specialist engineer. The heat pump gets 3/4 of the required heat from the air, the rest is electrical energy that drives the high-quality rotary compressor. The service water is heated in the hot water tank using the transmitter. The hot water tank is vacuum-enamelled, with a volume of 230 or 300 liters.

pressure lines

Plastic pipe for sanitary facilities including fittings, fittings, sealing, insulating and fastening material including house supply from a water meter

Kelox-Windox press wall panel 16 x 1/2 "IT

Drain lines including lifting system

HT drain lines including fittings and connectors, siphon connection bracket, sealing and fastening material (without extractor hoods).

HL 400 PE built-in WM siphon DN 50/40

Huter drywall element for wall-hung toilet, operated from the front

Single lifting plant Sanicubic 1 is a gray and black water pump for the waste water disposal of medium-sized plants Waste water recycling plant

Room ventilation via high-performance fan with overrun relay (without hygrostat control) including shell suction and assembly, number: 4 fans.

WC ground floor workers room

1 hand wash basin 50x25 e.g. Duravit, Happy D, No. 41850 or equivalent

1 washbasin tap incl. Waste set, siphon and corner valve

eg Hansa, series Hansaprimo or equivalent

1 wall-mounted toilet, washdown device, e.g. Duravit, Happy D, No. 17109 or equivalent

1 toilet lid e.g. Duravit, Happy D, no. 6691 or equivalent

1 toilet flush plate, e.g. Geberit, Sigma 01 white, 2 quantities or equivalent

1 fan

Bathroom ground floor

1 furniture washbasin 65x52 e.g. Duravit, Happy D, No. 41765 or equivalent

1 washbasin tap incl. Waste set, siphon and corner valve

eg Hansa, series Hansaprimo or equivalent

1 shower tray 120x80 e.g. Duravit, D-Code, No. 720113 or equivalent

1 shower fitting consisting of thermostat, hand shower and wall bar 90cm e.g. Hansa, series

Hansaprimo or equivalent

1 washing machine connection

1 fan

Kitchen

1 appliance connection for dishwasher

Connection and drain for kitchen faucet

3 water connections, directed for hose coupling

2 hand wash basins e.g. Duravit, Happy D, No. 41850 or equivalent with fittings

Bar

1 appliance connection for dishwasher

Connection and drain for kitchen faucet

3 water connections, directed for hose coupling

2 hand wash basins e.g. Duravit, Happy D, No. 41850 or equivalent with fittings

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WC upstairs ladies

3 hand wash basins e.g. Duravit, Happy D, No. 41850 or equivalent
3 washbasin tap incl. Waste set, siphon and corner valve
eg Hansa, series Hansaprimo or equivalent
3 wall-mounted toilets, washdown units, e.g. Duravit, Happy D, No. 17109 or equivalent
3 toilet lids e.g. Duravit, Happy D, no. 6691 or equivalent
3 toilet flush plate, e.g. Geberit, Sigma 01 white, 2 quantities or equivalent
1 fan

WC upstairs gentlemen

3 hand wash basins e.g. Duravit, Happy D, No. 41850 or equivalent
3 washbasin tap incl. Waste set, siphon and corner valve
e.g. Hansa, series Hansaprimo or equivalent
2 wall-mounted toilets, washdown units, e.g. Duravit, Happy D, No. 17109 or equivalent
2 toilet lids e.g. Duravit, Happy D, no. 6691 or equivalent
2 toilet flush plate, e.g. Geberit, Sigma 01 white, 2 quantities or equivalent
1 fan
3 wall-mounted urinal with automatic flushing

Bar upstairs

1 appliance connection for dishwasher
Connection and drain for kitchen faucet
3 water connections, directed for hose coupling
2 hand wash basins e.g. Duravit, Happy D, No. 41850 or equivalent with fittings

3.2.4 Example pictures

Hand basin



Wall-mounted toilet



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Basin



Shower tray



Basin mixer



Shower mixer



Hot-water-storage



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4. Finishing

4.1 Floor and wall coverings

Unless otherwise stated, natural oils are used to coat the visible supporting structure made of CLT cross-laminated spruce for a healthy living environment and optimal surface protection.

The oils penetrate deeply and protect the surface from moisture and dirt. This prevents unsightly stains and residues of liquids (e.g. water, wine, milk, fruit juice).

The wood remains open-pored and reacts to the air humidity in the room. It remains elastic, does not dry out and ensures a pleasant indoor climate.

The treated wooden surfaces are safe for humans and animals and even suitable for children's toys according to the standard.

Flooring

The dry screed system consists of two 10 mm or 12.5 mm thick stone fiber boards glued together. The two panels are staggered to create a 50 mm wide rebate. The dimensions of the elements are 1500 x 500 mm (with

0.75 m² cover area). A 2-layer Onewood floor is laid on top with a Lock-It profile

Optional wall or ceiling design with a ready-to-paint or painted surface. Simple planking using 10mm carrier material, such as rock wool or fiber board, directly on CLT board. Wetting and filling joints, filling quality Q2. Alternatively with a double painted surface with internal dispersion, color of your choice rolled or onewood paneling.

Onewood

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Onewood façade



Termite Resistant

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Class 1 Fire Retardant

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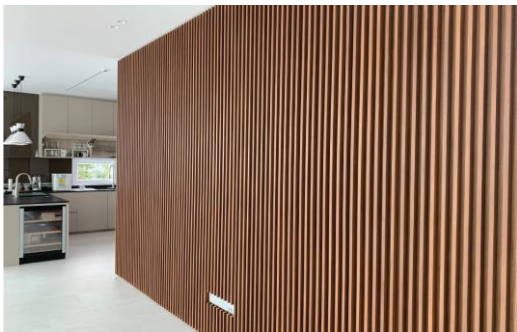
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4.2 Interior doors

Interior doors with surround frames, white silk-matt lacquered surface, door leaves flush in.
Incl. Object hinges and fittings, BB lock or toilet lock according to Önorm, e.g. Dana Mod. Euroba,
frame type F97 module, fittings Grundmann Mod. Geos 2554 or equivalent
Door leaf 40mm made of tubular chipboard covered with hard fiber, white pigment lacquered
according to RAL 9010, plastic edge
Passage width 110 x 220 height and 220 x height 220cm double wing



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4.3 Carpentry

4.3.1 stairs

Carpenter-like manufacture of the lower stair element as a piece of furniture, which can also be used as a storage option.

Stepping and seating surfaces in oiled larch to match the flooring. Cabinet elements consisting of body, revolving doors and adjustable compartments, decorative chipboard lacquered in white matt silk.



4.3.2 Skirting boards

All-round skirting boards, oiled, visibly screwed, tw. Installation of sockets 4.3.3 Switch elements vertical

Vertical switch elements matching skirting boards painted white silk matt, for the integration of supply lines mounted on plaster, as well as supply and positioning of sockets, room thermostats and switch elements.

4.3.4 Built-in furniture

All built-in furniture is produced according to the plan in decorative chip (body) according to customer requirements. incl. revolving doors, compartments adjustable, with all-round facing, fronts painted in one color

4.3.5 Fitted kitchen

Kitchenette with tall cabinet and fronts in coated quality, handleless, APL coated in 38mm laminate, all with 2mm ABS edge. incl. refrigerator, dishwasher, oven, ceramic hob, stainless steel basin incl. tap, single-color decor according to customer requirements, ...

4.3.6 Terraces

All-round terrace made of onewood with sealing system on substructure.

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4.4 Locksmith work

4.4.1 Railing construction

Railing posts and railing made of stainless steel profiles, cross struts made of steel cables, tensioned

4.4.2 Landing stage

Stainless steel construction with grating, the attachment is made to the floating body.



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5. Offer price and payment plan:

Offer Price: 2,170,000.-- €

Payment Plan

5% ~ after signing the contract	108,500.----
40% ~ after planning and approval by the client	868,000.---
40% ~ after preparation of the walls and ceilings as well as windows and doors, prior to transport	868,000.--
10% ~ after basic installation	217,000.--
5% ~ after completion and key collection	108,500.--

=====
Total: 100 % 2,170,000.--

Payment immediately upon request!

We have read the details and payment plan and confirm it with our signature:

Place, Date

Signature Mbao Ltd.

Signature buyer

Signature builder