

ELPLAST+



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**FLOATING DOCKS COMPONENTS
MADE OF POLYETHYLENE**

ASSEMBLY INSTRUCTIONS



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SIECI WODOCIĄGOWO-
KANALIZACYJNE

PRZEMYSŁ
I GÓRNICTWO

TELEKOMUNIKACJA
I ENERGETYKA

INSTALACJE
WEWNĘTRZNE

SPORT
I REKREACJA

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1. Subject matter of the Instructions

The subject matter of the present Instructions are polyethylene floating docks consisting of low-profile (N) and high-profile (W) modular components that are joined using the system connectors.

2. General provisions

Any assembling of the floating docks should be carried out in accordance with the present Instructions. Use of the present Instructions does not affect the Investor's/Designer's/User's obligation to follow the design guidelines, the technical documentation and binding legal regulations. The investor/user is obligated to obtain all necessary certificates/permits/etc. according to the binding local regulations, after having completed the facility made from the components.

3. Assembly and Installation

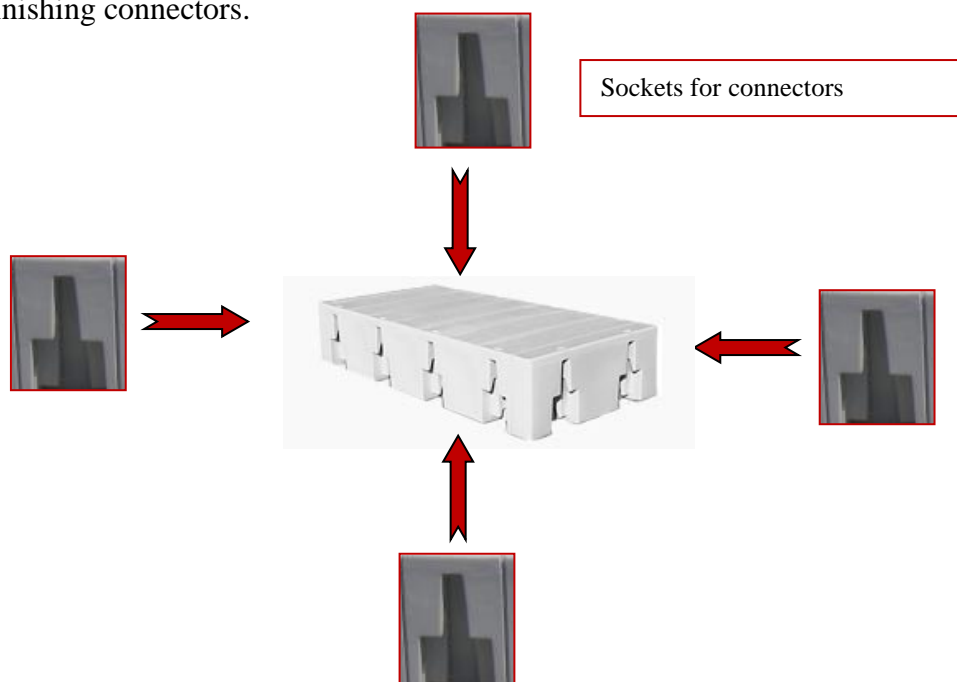
Assembling procedure for low-profile (N) components is the same as for high-profile (W) components.

Modular dock components enable you to arrange various shapes – straight docks, platforms, T, U, L or F-shaped facilities and square or rectangle shapes. It all depends on your imagination and the local conditions.



On all four sides of basic float sections there are connector sockets (where float connectors are installed) – what enables expansion of your floating dock into all four directions.

These sockets are also used for installation of pole connectors, accessory connectors and finishing connectors.



Assembly procedure:

- 1) Place the first float section on a bank/shore close to the water.



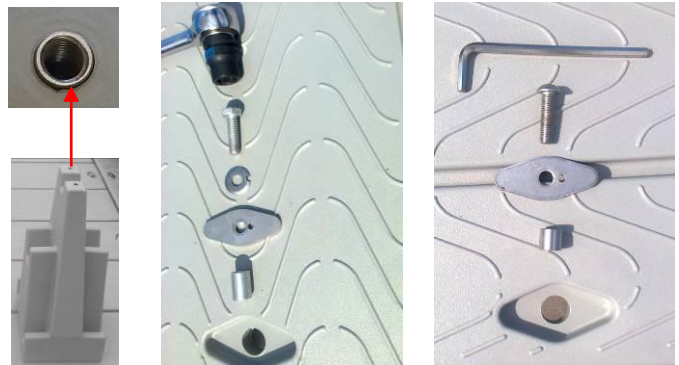
- 2) Prepare the components (float connectors, bolts M10x35, diamond washers, steel sleeves and assembling tools (a wrench for bolts M10)).

Typically, all connectors are delivered with the hardware kit including a bolt M10x35, a diamond washer and a steel sleeve. Bolts M10x35 are hex socket button head bolts (as a standard) or hexagon-head bolts. You should use an Allen wrench size 6 mm for button-head bolts, or size 17 for hexagon-head bolts.

Float connectors, pole connectors, accessory connectors and finishing connectors have female-threaded inserts M10, which bolts M10 are screwed into.



Female-threaded insert M10



- 3) Put float connectors into all float section sockets where other float sections will be attached and secure them with bolts M10x35, diamond washers and steel sleeves. In a diamond washer there is an additional hole that fits for a washer with a tongue (the tongue fitting into the hole). After tightening a hexagon bolt, you should bend a washer with a tongue (with a screw-driver for example) to the right angle (90°) so that the washer fits the bolt head and protects the bolt from getting loose. Tighten the bolts with a wrench using approx. 34 Nm of torque.

Be careful not to overtighten the bolts.



- 4) Move the float section into the water and tight to the shore for the time of assembly work, e.g. with a rope. For the low-profile Series we recommend you should join 2 or 3 float sections before moving them into the water.
- 5) Add next float sections by placing them over the already installed float connectors and secure them with bolts M10x35, diamond washers and steel sleeves.



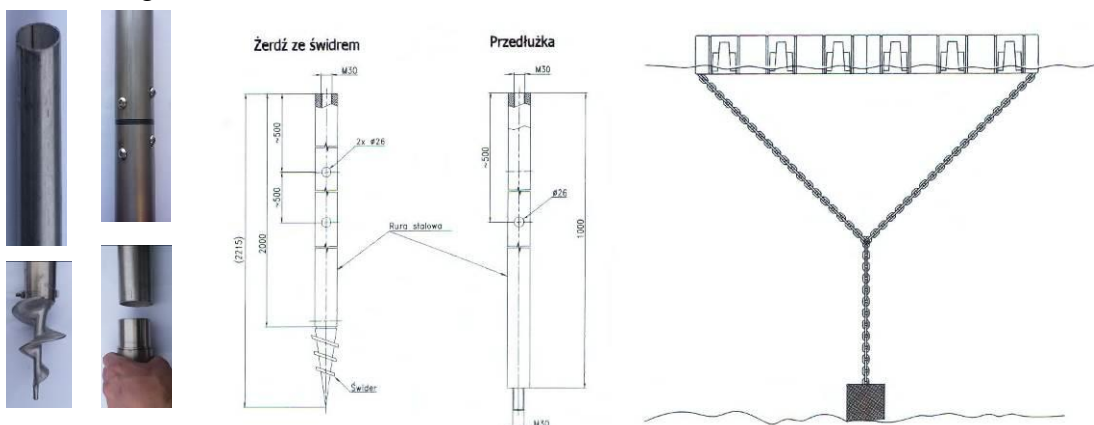
- 6) Following the above-mentioned steps, assemble the other components according to the chosen design.



- 7) Anchor the dock as designed.

Basic examples of anchoring methods using:

- Anchoring poles that are drilled into the lake/river bed (recommended for max water depth 4m),
- Chains, elastic ropes and dead-man collars (recommended for water that is more than 4m deep). This method is used if it is not possible to use anchoring poles (deep water, stony bottom). The suitable anchoring method should be determined by the designer depending on the dock design and the local conditions.



Follow the procedure to anchor your dock with the anchoring poles:

- Slip a pole connector over the top of a pole with an auger (i.e. anchoring pole) – the auger facing downwards



- Place the pole connector with the inserted anchoring pole in the proper seat of a float section and secure with a bolt M10x35, a diamond washer and a steel sleeve.



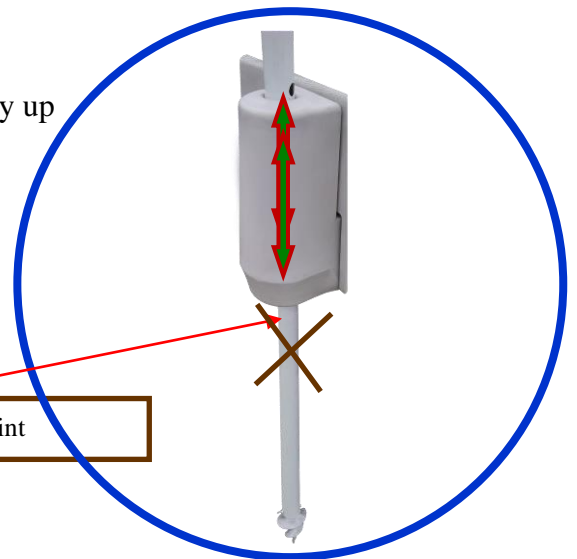
- Drive a pole extension into the anchoring pole (depending on the water level)
- Using a pole wrench turn the anchoring pole into the bottom of a lake/river 0,5÷1m deep, depending on the bottom type
- Slip a pole cover onto the top of the pole



Anchoring poles – an example

Driven into the lake bed, an anchoring pole moves freely up and down in the hole of a pole connector attached to a dock what makes the dock move vertically, following the water level fluctuation.

Such anchoring method prevents the dock from horizontal movements, makes it stable – preventing its tilting, so it is recommended in some critical locations.

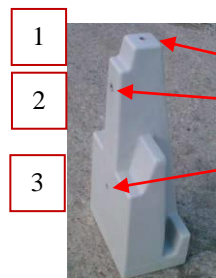


Fixed points – anchoring point

- add extra extensions for your anchoring poles, if you expect higher water levels.

8) Install guardrails, if required in the design.

To do so, first, install accessory connectors into proper sockets of the float sections. In accessory connectors there are 3 female-threaded inserts M10.



Using the first insert from the top, attach an accessory connector to the float section and secure it with a bolt M10x35, a diamond washer and a steel sleeve. Attach the guardrail to the second and third inserts and secure it with bolts M10.



9) Install the finishing connectors into the float section sockets, if required. These connectors are designed to fill the sockets and give an attractive appearance to your dock. Place a finishing connector in a float section socket and secure it with a bolt M10x35, a diamond washer and a steel sleeve. Use a wrench to tighten the bolt to ca. 34 Nm of torque. Be careful not to overtighten the bolts.

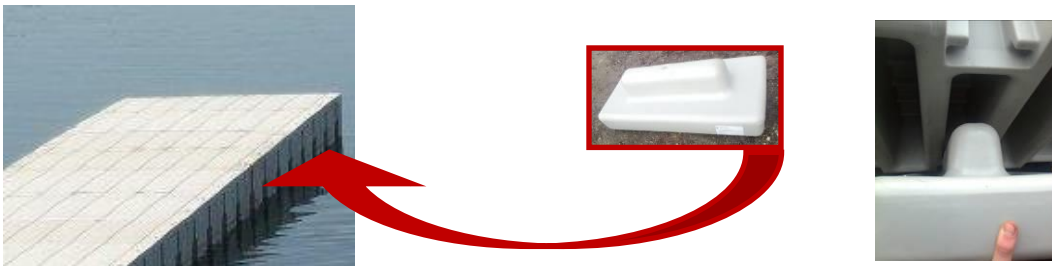


10) Install the extra flotation, if required.

The extra flotation adds 27 kg of extra buoyancy to your low-profile dock and 136 kg in case of the high-profile dock. It also increases the dock stability.

An extra flotation should be placed where excessive weight is expected to occur (corners and ends of your dock).

Insert an extra flotation under a float section, i.e. push an extra flotation under water and into a float section recess with its convex part upwards.



11) Attach cleats to the float section sockets of your dock, if required.

Cleats can be attached to any float section sockets. Insert a bolt M10 through the cleat and the top of the float section socket and secure it. Typically, a cleat is delivered together with a bolt M10, a steel sleeve, washers and a nut. It is recommended to attach cleats to accessory connectors or finishing connectors. It is possible to install a cleat directly into the float section holes.



12) Install extra elements, if required (e.g. swim ladders, gangways, etc.).

Attach these extra elements to your dock by using accessory connectors and the holes in float sections.



4. Executed projects - examples



5. Remarks on Assembly requirements

1. We recommend that floating docks are designed by properly authorized designers.
2. In case floating swimming pools either the customers or the designer should determine the type and the size of netting (if applicable).
3. When designing and installing the floating dock, you should consider local conditions, mainly waves and winds.
4. The low-profile docks are recommended for the following weather conditions: wind up to 10 m/s and wave height up to 0,3m.
5. The high-profile docks are recommended for the following weather conditions: wind up to 13,80 m/s and wave height up to 0,6m.
6. For high food-traffic we recommend our high-profile floating docks.
7. Dock components comprise venting holes to equalize the pressure. These holes should not be obstructed.
8. Under maximum load, at least 5cm (freeboard) of your dock must show above the water surface for adequate venting purposes.
9. The angle of heel for the dock should not exceed 6°.
10. The float bilge should not emerge from water.
11. Whenever extra buoyancy or increased stability is needed, or extra weight is added you should consider using the extra flotations.
12. A floating dock should float and it should not touch the bottom of the river/lake/etc. If it is not possible to enter the dock from the shore, we recommend use of gangways.
13. We recommend periodic inspections of screw connections – if bolts get loose, you should tighten them or you should use the protection measures described in Article 3 on Page 4, still another option is to use a 10 mm stainless steel spring washer (see the picture below).

A bolt, a diamond washer,
a spring washer, a steel sleeve



view of the complete connection



"ELPLAST+" Sp. z o.o. provides its customers with spring washers, if needed.

14. We recommend that you take your floating dock out of water and disassemble it for winter period (especially in case of flowing waters, e.g. rivers, where floe may occur), as thick ice may damage the components.
15. The components of floating dock require pre- or after-season inspections after each season of use.
16. The incorrect installation or improper use of the dock components may result in voiding your warranty.

6. Packing

Typically, float sections and steel parts are delivered loose or on pallets.

Float connectors, pole connectors, accessory connectors, finishing connectors and pole covers are typically packed into paperboard boxes. Components on pallets are wrapped with stretch film and fastened with PP tape.

Other methods of packing, as arranged with a customer, are possible.

7. Storage

The components should be stored in a designated place to avoid their damage.

The components may be stored outside, excluding those packed into paperboard boxes.

They should be stored at a distance from any heat sources.

When stored, the dock sections should be placed with the walking surface up.

8. Transport

The goods may be loaded only onto vehicles with even surfaces without sharp and protruding edges. During transportation the components should be placed tightly and protected from shifting with use of soft (not metal) tapes, e.g. webbing. The components made of PE should be separated from steel ones, to prevent their damage.

The components must not be thrown or pulled along a surface covered with stones/sharp objects.

9. Final remarks

Prior to any assembly works the assemblers should get familiar with the present Instructions. The remarks included in the Instructions should be treated as general ones and they do not exempt you from following other appropriate binding regulations, i.e. health and industrial safety ones, legal ones, standards and instructions.

After completion of the assembly/installation works the customer is obligated to take pictures of the assembled/installed dock and send such pictures to the manufacturer.

Any claims shall be considered only on condition that the above mentioned is met.

If you notice any damages or defects of the dock, you should immediately inform the owner of the facility and then notify the authorized agent and the manufacturer - „Elplast+” Sp. z o.o.

Recommendations for operation and maintenance of floating docks made of polyethylene are included in the Instructions EL-67.

The dock components made of polyethylene are recyclable.

These components may be collected free of charge by „ELPLAST+” Sp. z o.o.



Additional information is available from: www.elplastplus.pl



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