

„ClingCup“ Manual

with the Clingfish-Effect® for reversible attachment to rough and smooth surfaces

1. The ClingCup

Introducing the **ClingCup**: Your Solution for Secure Attachment!

We've all experienced it—the frustration when a suction cup loses its grip due to a slightly rough or unclean surface. But fear not! The ClingCup, our cutting-edge suction cup with the Clingfish effect, is here to solve this common problem.

Key Features:

- **Reliable Adhesion:** The ClingCup works not only on smooth surfaces but also on rough ones.
- **Unexpected Versatility:** Unlike traditional suction cups, it adheres to textured and uneven surfaces you wouldn't have thought possible.
- **No More Limits:** Say goodbye to mounting challenges! Whether it's laminate, anti-slip tiles, or the hammered sidewall of your camper, the ClingCup has you covered.
- **Clingfish Effect® Technology:** This groundbreaking technology opens up new possibilities for reversible fastening, even on surfaces where it was previously impossible.

2. The Clingfish®-Effect: Inspired by Nature's Clingfish

Our innovative ClingCup draws inspiration from the remarkable Northern Clingfish. This small fish resides in tidal zones, where it defies the relentless ocean waves by anchoring itself to rugged rocks using a suction cup on its belly.



Key Features of Suction Cups with the Clingfish® Effect:

- **Versatile Adhesion:** Not limited to smooth surfaces, our ClingCup adheres strongly to rough, textured, and uneven surfaces—both above and below water.
- **Reversible Magic:** Experience the power of reversible adhesion, allowing you to mount and unmount effortlessly.

3. ClingCup Applications: Versatility Beyond Limits

The ClingCup, with its remarkable adaptability, finds its place in various domains. Whether you're by the pool, camping in the great outdoors, or navigating the waters, the ClingCup has you covered.

Key Applications:

- **Swimming Pool Area:** Secure underwater punching bags, partitions, and water polo nets.
- **Camping & Outdoor Adventures:** Attach awnings, transportable solar panels, and outdoor showers.
- **Boating & Water Sports:** Use it for transportable solar panels, luggage attachment, and even echo location. The ClingCup isn't limited to these scenarios alone—it can also be your go-to solution in other areas where reliable mounting is essential.



ClingCup on pool surface (left), an inflatable surfboard (middle) and Hammered surface of a caravan (right).

4. Installation Made Easy

To mount the ClingCup, simply position it at your desired location and press down firmly at the center. Ensure complete contact for optimal performance.



Not attached

Press down to attached

5. Precautionary Measures and Safety Instructions

- **Chemical Intolerance:**
 - Avoid storing the ClingCup directly on or next to soft PVC materials.
- **Temperature Range:**
 - The ClingCup can be used within a temperature range of **-10°C to 50°C**.
 - In colder conditions, consider pre-heating the suction cup for optimal performance.
- **Compatibility:**
 - The ClingCup is suitable for both **above and underwater** use.
 - It works in both saltwater and freshwater environments.
 - While use in chlorinated water is possible, prolonged exposure may reduce the suction cup's lifespan.
 - After chlorinated water use, rinse the ClingCup with fresh water and store it dry until the next use.
- **Residue:**
 - The ClingCup may leave residues on certain surfaces.
 - Typically, warm soapy water can remove these residues.
 - However, on dry, highly absorbent surfaces (like woodchip wallpaper), removal may be challenging—avoid such applications.
- **Porous Surfaces:**
 - Avoid using the ClingCup on porous substrates.
 - While immediate detachment is noticeable on very porous surfaces (e.g., plasterboard, OSB boards, sandstone), it detaches more slowly on slightly porous (air-permeable) surfaces (e.g., some concrete walls).
 - For sensitive or fragile objects on unknown surfaces, perform a longer-term holding test beforehand.
- **Flexible and Elastic Materials:**
 - Be cautious when using the ClingCup on flexible or elastic materials, as it may affect function and attachment force.

Remember, following these guidelines ensures optimal performance and longevity for your ClingCup!

6. Suitable surfaces for the ClingCup

The ClingCup, with its Clingfish® effect, adheres to a wide range of surfaces, accommodating various textures and shapes. Whether flat or slightly curved, it provides reliable grip.

- **Textured Surfaces:**
 - Tile Front or Back: Whether textured, the ClingCup holds firm.
 - Textured Acrylic Glass or Metal: Ideal for secure attachment.
- **Rough Surfaces:**
 - Anti-Slip Tiles: The ClingCup conquers rough tile surfaces.
 - Laminate and Sealed Wood Imitations: Perfect for practical use.
 - Unpolished, Non-Porous Rock (e.g., Marble, Granite): Reliable adhesion.
 - Rough Metal: The ClingCup grips even on metal surfaces.
 - Swimming Pool Surfaces: Refer to this guide for specifics.
 - Sealed Varnish-Coated Rough Surfaces: It excels here too.
 - <https://clingtech-bionics.com/wp-content/uploads/2023/04/Type-of-pool-surface.pdf>
- **Smooth Surfaces:**
 - Smooth Tiles
 - Polished and Airtight Stone Surfaces (e.g., Marble, Granite)
 - Glass, Acrylic Glass, and Ceramics
 - Kitchen Countertops and Melamine-Coated Surfaces

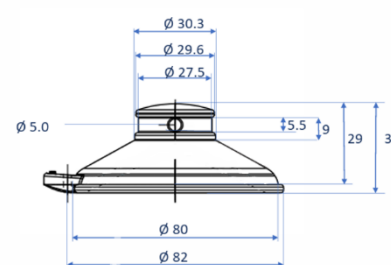
Unsuitable Surfaces:

Avoid using the ClingCup on **air or water-permeable materials**:

- Plaster walls
- OSB boards
- Sandstone
- Unsealed softwoods

For additional details, visit our website: www.ClingTech-Bionics.com.

7. Technical specifications



Connection: The upper part of the ClingCup provides various connection options. For instance:

- A suitable cord, U-ring, or hook can be threaded through the hole in the mushroom head.
- Alternatively, you can reposition the constriction in the head area of the suction cup using an additional lock through the hole with a pin.

Attachment Forces:

- The ClingCup is designed to withstand pull-off forces of at least **25 kg** in the normal direction (vertical to the substrate).
- In the lateral direction, the pull-off forces are approximately **9 kg**.
- Depending on the specific substrate, the maximum pull-off force may be even higher.
- For long-term applications, it's advisable to include a safety factor of **3-4** when considering holding forces.

8. Detachment

To remove the ClingCup, pull gently on the side flap.

Pool suction cup: In the case of the pool suction cup, the flap is connected to a red floating bead. This bead is easily visible under water due to its red color and can be detached with the foot.



9. Cleaning

- After use in salt or chlorinated water, or after contact with aggressive chemicals, rinse the ClingCup under running water.
- The soft side of the suction cup can collect dirt particles, but light soiling usually doesn't affect its function.
- For stronger contamination, wash with lukewarm soapy water.

CAUTION: Avoid using harsh chemicals for cleaning, as they may reduce the ClingCup's lifetime.

10. Storage

- After use in saltwater, chlorine water, or contact with other chemicals, rinse the ClingCup under running water and allow it to dry.
- Store the ClingCup in a way that protects it from mechanical damage caused by sharp objects.
- Avoid exposing it to temperatures above **80°C** or extreme sunlight.

11. Reuse

The ClingCup is designed for multiple applications. However, after long-term installation, allow the ClingCup a few hours to a day to recover its shape before reattaching it. This recovery time is not necessary for short-term applications.

12. Disclaimer

- No liability is granted for improper use.
- When attaching sensitive or fragile objects, or if there is a risk of an accident, users must check the application beforehand. No liability is assumed

Contact

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