Naturi Pools

Sorgiva® Installation Training Manual

Purpose of This Manual

This manual is a professional training guide for authorized **Naturi Pools** installers. It explains the correct installation of the patented **Sorgiva® pool system**, outlines best practices, and defines required standards to ensure long-term performance, durability, and water quality.

All procedures in this manual must be followed exactly. Deviations may compromise system performance and will void the Naturi Pools warranty.

---

1. Overview of the Sorgiva® System

The **Sorgiva® system** is a patented, globally unique pool construction method used by **Naturi Pools** to create pools with a natural appearance and advanced water circulation.

Unlike traditional pools, the Sorgiva® system does not rely primarily on inlet nozzles for circulation. Instead, water is distributed through **capillary diffusion within the pool lining itself**. This is achieved using specially perforated diffusion pipes installed above the waterproof membrane and running throughout the entire pool.

This design ensures: - Uniform water circulation throughout the pool - Continuous disinfection of the lining surface - Reduced risk of algae and bacterial growth - Long-term structural and aesthetic stability.

Only **trained and authorized Naturi Pools installers** may install the Sorgiva® system.

---

2. Safety and Authorization Requirements

- All installers must complete Naturi Pools-approved Sorgiva® installation training.
- All legally required personal protective equipment (PPE) must be worn at all times.
- Unauthorized modifications to the system are strictly prohibited.
- Any unapproved changes will immediately void the Naturi Pools warranty.

3. Site Preparation

Before construction begins, complete the following steps:

- Inspect the installation site.
- Obtain all required building permits and approvals.
- File a declaration of commencement of work where required.
- Approve a detailed project plan with the client, including pool shape and specifications.
- Confirm site access for equipment, vehicles, and materials.
- Designate a dry, protected storage area for materials.
    - Sand and quartz **must be protected from moisture**.
- Verify soil conditions or obtain a soil analysis.

4. Excavation and Shaping

4.1 Layout

- Mark the excavation according to the approved project plan.
- Any design changes must be approved and signed by both the client and installer.

4.2 Excavation Standards

- Excavation defines the final pool shape and is a critical phase of construction.
- Wall slopes must not exceed **40–42 degrees**.
- Entry beaches must slope gently to allow safe access.
- Pool depths must match approved plans.

4.3 Fill and Compaction

- Use **stabilized fill material only**.
- Compact material thoroughly to prevent settlement.
- Do **not** use soil or loose fill materials.

***Professional excavation crews experienced in rounded and sloped profiles are strongly recommended. This stage will shape your entire project.**

4.4 Reference Levels

- Excavate the top band **2 inches below finished grade (-2" below 0)**.
- Top band width must be **10–12 inches minimum**.
- All depth measurements are taken from water level, which is **4 inches below finished grade (-4" below 0)**.

Provide bottom drainage where required to allow safe pool emptying during maintenance.

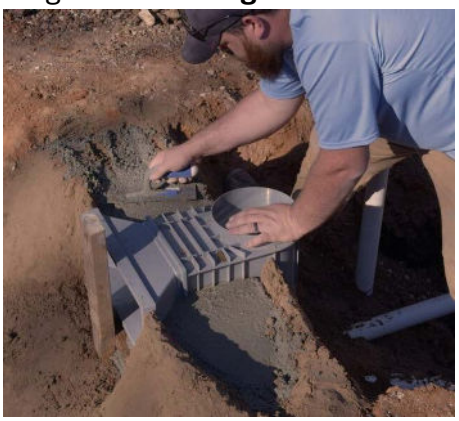
5. Plumbing and Structural Components

5.1 Main Drain and Delivery Pipes

- Install delivery pipes at the pool bottom.
- Install the main drain with pressure-equalizing cap (hydrostat valves) to prevent pool uplift during draining.

5.2 Skimmers

- Skimmers are installed first and establish water level and pool perimeter height.
- Position skimmers **8–10 inches** back from the slope edge to allow for slope of pool walls.
- Excavate:
  - **14 inches below finished grade** (zero) for skimmer mouth
  - **30 inches below grade** (zero) for skimmer base
- Set, plumb, and encase the skimmer collar using **two 80 lb bags of concrete**.



5.3 Nozzles and Manifolds

- Nozzles and main drain must be flush or slightly recessed.
- Install the return manifold opposite the skimmers.
- Manifolds may be concealed in landscaping.
- Aero-therapy manifolds should be placed near benches or tanning ledges.

6. Protective Layers and Liner Installation

- Install protective fabric (woven or recycled as required) across the entire pool surface.
- Weld seams using a heat gun.

EPDM Liner

- Install the EPDM liner above the protective fabric.
- Ensure proper flanging and watertight seals.
- Minimize folds and secure them with approved primer and EPDM tape.

7. Sorgiva® Diffusion System

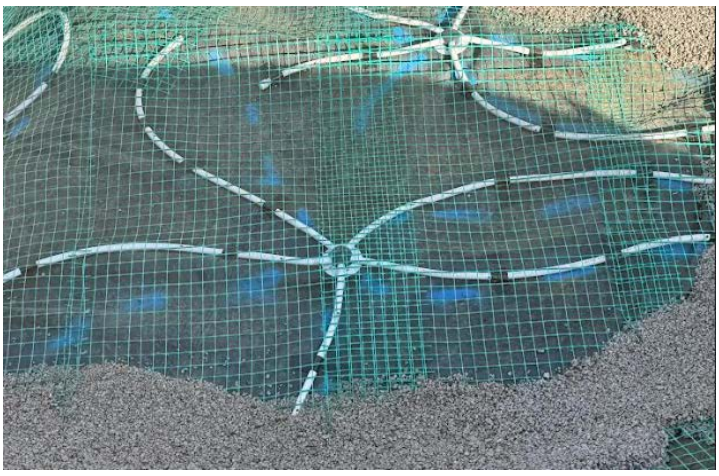
- Glue Naturi Pools Sorgiva® diffusers to all nozzles.
- Install directional or radial nozzles as specified.

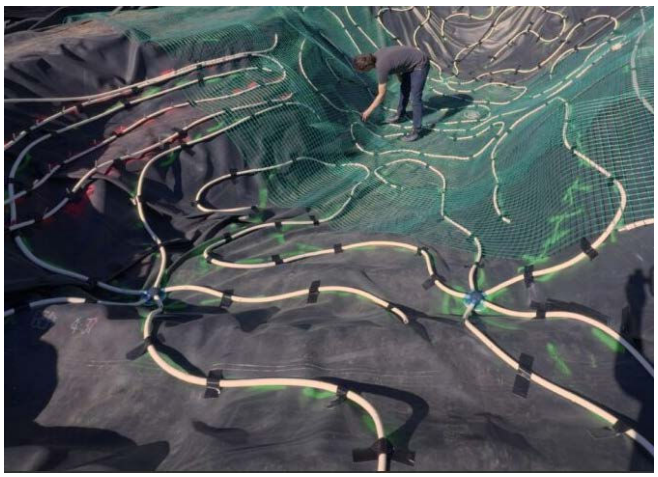
Diffusion Pipes

- Drill provided flex pipes every **12 inches** using a **5/16-inch bit** through both sides of pipe.
- Secure pipes to the liner in a radial pattern using Gorilla tape.
- Maximum spider line length: **15 feet**.
- Spider lines must be **16 inches below water level**.
- T-connect spider lines no more than **9 feet apart**.
- T-connection must be equidistant to each distribution point.

Return jets must: - Be positioned **12 inches below water level** - Direct water toward the skimmers slightly angled towards the water surface.

Aero-therapy lines: - Used on benches and tanning ledges - Drilled every **8 inches** Through one side of pipe only - Include a resistor and 2-inch internal tube at every hole.





8. Filtration, Electrical, and Features

- Connect all delivery and suction pipes to the filtration and disinfection system.
- Equipment sizing must comply with all regulations.
- Layout and Prepare conduits and recesses for lighting.

Important: Chemical injection (chlorine, pH adjusters) must only occur through wall inlet nozzles and never beneath sand or aggregate layers.

---

9. Reinforcement and Base Layer of Sand

- Protect the EPDM liner above and below any rocks or monoliths installed inside the pool.
- Lay fiberglass mesh across the entire surface.
- Overlap sheets by **2 inches (one square)**.
- Remove all wrinkles by cutting and overlapping mesh.

Resin and Aggregate Base Layer

- Mix Resin (Yellow Containers):
  - Component A: **0.8 kg**
  - Component B: **0.4 kg**
  - Mix thorough components A and B and then
  - Add **25 kg crushed quartz** and mix in mixer
- Apply in **12–24 inch lifts**, depending on temperature and slope.
- Allow approximately **1 hour** between lifts.
- Apply using an American trowel to a thickness of **1½ inches**.

If fiberglass mesh becomes visible, trim and remove it before the final coat.

Cover the surface to prevent moisture until it is fully dry. **DO NOT PROCEED** if surface is wet. It must be dry to move on to finishing layer.

---

10. Finishing Layer and Consolidation

Lay Out Control Joints

Mark control joints approximately every 380 sf of pool lining depending on the size and shape of the pool. Control joints are only as thick as the final coat.

Finishing Mix

- Mix quartz or marble sand with Resin 2 (Blue Containers):
  - Component A: **1.5 kg**
  - Component B: **0.5 kg**
  - **Mix thorough components A and B and then**
  - Add **25 kg of sand per 2 kg of resin mixture and mix in mixer**

It is imperative resin dosages be applied strictly.

Apply evenly to a minimum thickness of **3/8 inch using a trowel**. Leave joint areas clear with clean edges.

After **48 hours** ensure the surface is completely hardened, sand and clean the surface. Rinse areas that are sanded to remove dust and debris.

Expansion Joints

- Mix **25 kg pebbles** with **1.2 kg Resin 2 (Blue Containers)**.
- Fill joint spaces.

Fence off the pool area for at least **30 hours** to prevent damage from pets if needed.

11. Final Resin Application

- Whisk together Companents A and B of finishing kit (red containers) then add 2 liters of butyl acetate.
- One kit covers approximately 30 m^2 (322 square feet)
- Pour mixture into pump sprayer and apply evenly over pool surface
- **Surface must be clean and dry** (no dust from sanding on surface)
- Multiple coats may be applied with **24 hours between coats**.

Minimum curing time: **48 hours at 77°F**. Cooler temperatures increase curing time.

12. Start-Up and Final Warnings

- Do not apply resin below **41°F**.
- Once fully cured, fill the pool and start filtration.

Important Warnings

- Prevent water contact during resin curing.
- Mix resins thoroughly for no more than **4 minutes**.
- Follow all specified ratios exactly.
- Contact Naturi Pools Technical Support in the event of unexpected weather.

All electrical work must comply with local codes.

Naturi Pools reserves the right to update this manual at any time.

Mixer Cleaning Procedure

- Clean mixers regularly to prevent resin buildup and color variation. We recommend every 2-3 mixes.
- Bottom coat: clean when buildup is visible.
- Final coat: clean every **3 batches**.

Cleaning Steps: 1. Scrape buildup from mixer surfaces and discard. 2. Wipe with denatured alcohol. 3. Dry thoroughly and resume mixing.

Proper cleaning is not only important to extend the life of your equipment, but also imperative to ensure consistent color of finish coat. Excess resin build up **WILL** cause color variations in the final coat.

At the end of the day, clean with acetone. Hardened buildup may be carefully burned off and scraped clean.

Welcome to the Naturi pools family! We are excited to partner with you and support your growth as a certified installer. Our team is committed to being available whenever needed to ensure your success and the highest quality of standards.