

# The 7 Installation Mistakes that Cause 90% of Fiberglass Pool Failures.

Knowing these 7 mistakes makes it much easier to judge whether a contractor is cutting corners.

Fiberglass pools rarely fail because of the **pool shell**. Almost all long-term problems come from **installation mistakes**. Installers who know fiberglass well avoid these mistakes, but inexperienced contractors repeat them over and over again.

*"The bitterness of poor quality remains long after the sweetness of low price is forgotten."*  
Benjamin Franklin

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## 1. Poorly Prepared Base

The base supports the entire pool structure.

Common mistakes:

- Setting the pool on excavated soil
- Using sand as a base
- Too little base material
- Base is not appropriately leveled

Correct method typically includes:

- 4–6 inches of clean crushed stone (#57 or #8)
  - Could be more if conditions warrant
- Laser leveling
- Screeding and compacting

A bad base causes:

- Crooked waterline
- Pool settling
- Deck cracking

## 2. Setting the Pool Out of Level



Fiberglass pools must be extremely level.

Even 1 inch off can be noticeable and places stress on the fiberglass pool

Common causes:

- Poor base preparation
- Not checking level after the shell is set
- Not adjusting stone under the shell

Good installers:

- Check level before backfill
  - Check again during water filling
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### **3. Backfilling With Dirt**

This is one of the most common and damaging mistakes.

Bad installers use:

- Excavated dirt
- Clay soil
- Sand

These materials:

- Hold water
- Shift over time
- Create uneven pressure on the shell

Correct materials:

- Clean crushed stone
- Pea gravel

These allow drainage and structural support.

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### **4. Not Filling Water While Backfilling**

Fiberglass shells rely on balanced pressure.

Correct method:

1. Fill pool 12–18 inches
2. Backfill 12–18 inches
3. Repeat

If installers:

- Backfill the whole pool first
- Fill water later

...the shell can flex or distort.

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## 5. Poor Support Under Steps and Benches

Steps, benches, and tanning ledges need solid support underneath.

If there are voids:

- Steps may flex
- Gelcoat can crack
- Structural stress develops

Good installers:

- Hand pack gravel under these areas
  - Sometimes use structural foam
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## 6. Ignoring Groundwater and Drainage

Groundwater pressure can push on the pool shell.

Good installations often include:

- French drains
- Perimeter drainage pipe
- Sump pits with pumps; automated pumps are preferred.
- Hydrostatic relief valves

Ignoring drainage can cause:

- Pool lifting slightly
- Deck movement
- Water pressure against the shell
- Bulging of walls, which places stress on the whole shell

This is especially important in Midwest where the excavated soil often weighs more than the pool shell with water.

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## 7. Plumbing Installed Incorrectly

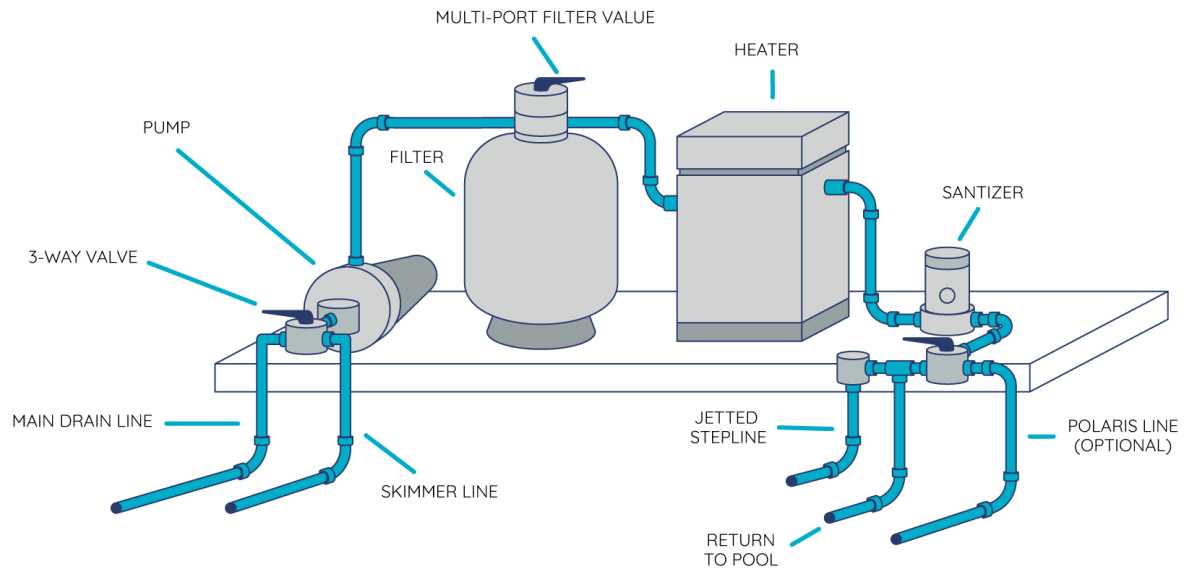
Common plumbing mistakes include:

- Using flex pipe instead of Schedule 40 rigid PVC
- Not pressure testing lines
- Burying pipes before testing
- Poor equipment layout

Leaks under a pool deck can be very expensive to fix later.

Professional installers:

- Pressure test plumbing
- Use Schedule 40 PVC; not flexible pipe
- Install separate lines for skimmers and drains



## What to expect from you new Fiberglass Pool

When installed correctly:

- Fiberglass pools last **30–50+ years**
- Maintenance is lower than concrete
- Structural problems are infrequent

And most problems trace back to **one of these seven mistakes.**