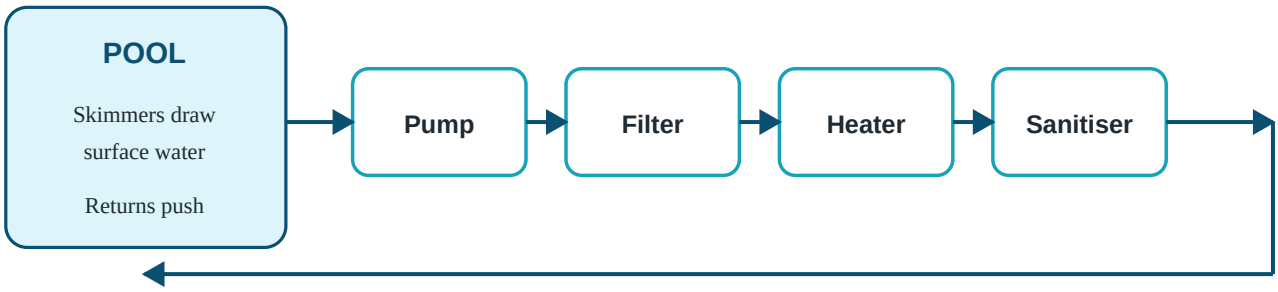
Swimming Pool Pipework Installation Guide

Step-by-step guidance for skimmers, return jets and filtration equipment using glue-fit PVC pipework.

Correct equipment order: Pump -> Filter -> Heater -> Sanitiser -> Return Jets



Use arrows on site to confirm flow direction before gluing final joints.

Scope: This guide covers plumbing connections only. It does not cover excavation, backfilling, structural works, electrical installation or water treatment setup.

Prepared for MyPoolDirect.co.uk

1. Before You Start

Plan the pipe route before cutting or gluing. A tidy layout makes the system easier to commission, service and fault-find later.

Step 1: Confirm the pool fittings

Identify each skimmer and each return jet. Decide which pipes are suction lines and which are return lines before any solvent weld work begins.

✓ Skimmers = suction side
✓ Return jets = pressure/return side
✓ Mark all pipes with flow direction

Step 2: Dry-fit the pipework

Assemble the first section without cement. Check alignment, valve access and equipment position. Do not rely on forcing pipe into place after it has been glued.

✓ Pipe sits naturally into fittings
✓ No twisting stress on skimmers or returns
✓ Valves can be reached easily

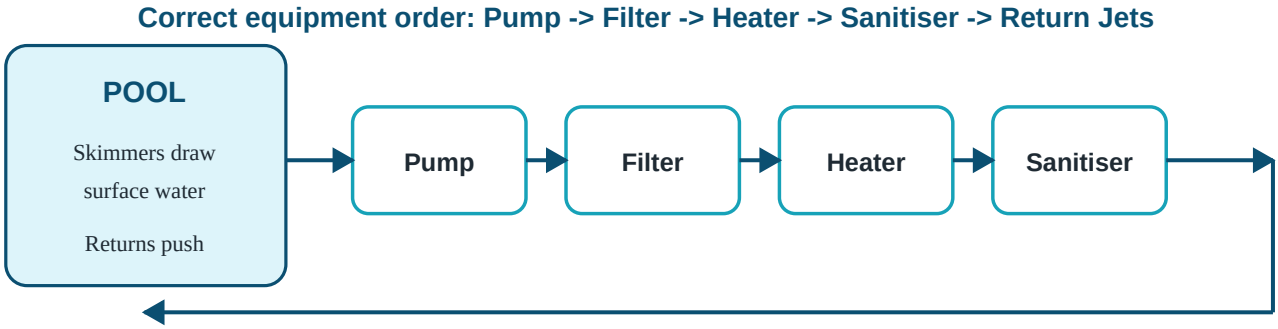
Step 3: Prepare your materials

Use pressure-rated PVC pipe, compatible glue-fit fittings, PVC cleaner and high-quality solvent cement. Keep cleaner and cement capped when not in use.

✓ Pipe and fittings are compatible
✓ Cleaner and cement are suitable for PVC
✓ Unions available near equipment

Installer tip: Number or label the pipe ends during dry fitting. This avoids accidentally gluing a fitting in the wrong orientation.

2. System Connection Diagram

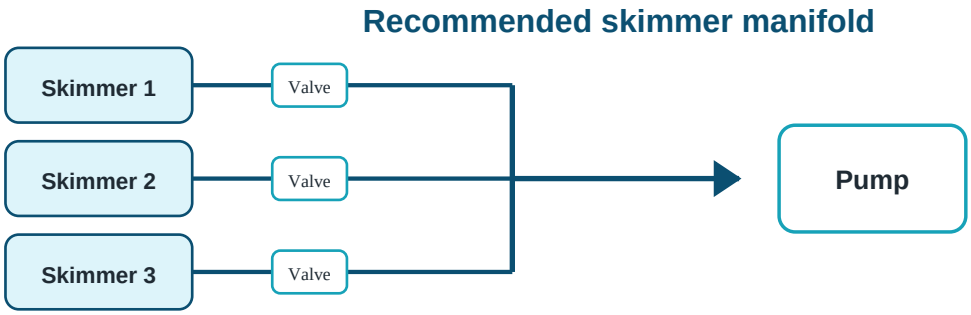


Use arrows on site to confirm flow direction before gluing final joints.

The correct flow path is skimmers to pump, then pump to filter, heater, sanitiser and back to the return jets. The pump must always be protected from air leaks on the suction side, and downstream equipment must follow the manufacturer flow direction.

Area	What to check
Skimmer pipework	Independent lines are preferred. Avoid unnecessary bends before the pump.
Filtration equipment	Install in the correct order with unions for servicing.
Return pipework	Use a return manifold or balanced branches feeding the return jets.

3. Skimmer Pipework - Step by Step



Each skimmer has its own line and valve so flow can be balanced and isolated for service.

Step 1: Connect to the skimmer outlet

Check the skimmer outlet is clean and undamaged. Dry-fit the connector and confirm the pipe exits without strain. Glue the fitting only when the alignment is correct.

✓ Outlet is clean and dry
✓ Pipe does not pull the skimmer body
✓ Joint pushed fully home

Step 2: Run each skimmer line separately

Where possible, run each skimmer back individually to the equipment area rather than joining lines where access is limited. This gives better control and simpler servicing.

✓ Dedicated skimmer lines
✓ Minimum bends
✓ No hidden inaccessible joins where avoidable

Step 3: Add suction-side valves

Fit isolation or balancing valves before the pump. Valves allow one skimmer to be adjusted or isolated without shutting down the whole system.

✓ Valve on each skimmer line
✓ Flow direction labelled
✓ Enough space to operate valve handles

Common mistake: Joining two skimmers into one pipe with no valve control can make one skimmer pull harder than the other, reducing surface cleaning performance.

4. Skimmer Reference Photos

Reference photo: skimmer body and pipe connection area.

Reference notes:

- Keep the skimmer connection square and free from twisting stress.
- Use rigid pressure-rated PVC for the final glue-fit pipework.
- Check orientation carefully before applying solvent cement.

Reference photo: skimmer/pipe position for planning the route.

Reference notes:

- Dry-fit first so pipe lengths and fitting angles can be checked.
- Avoid forcing pipework into position after the joint is made.
- Make sure the pipe route remains serviceable at the equipment end.

5. Glue-Fit Pipework Method

Solvent weld pipework is permanent. The joint is made by chemically welding the pipe and fitting together, so preparation matters.

Step 1: Cut square

Use a proper pipe cutter or fine-tooth saw. An angled cut reduces socket contact.

Step 2: Deburr

Remove sharp edges inside and outside the pipe so the pipe seats fully.

Step 3: Clean

Use PVC cleaner on both the pipe end and fitting socket. The joint must be dry and clean.

Step 4: Cement both surfaces

Apply even solvent cement to the pipe and fitting. Avoid dry patches.

Step 5: Push and twist

Push fully home with a small twist, then hold for 10-20 seconds.

Step 6: Leave to cure

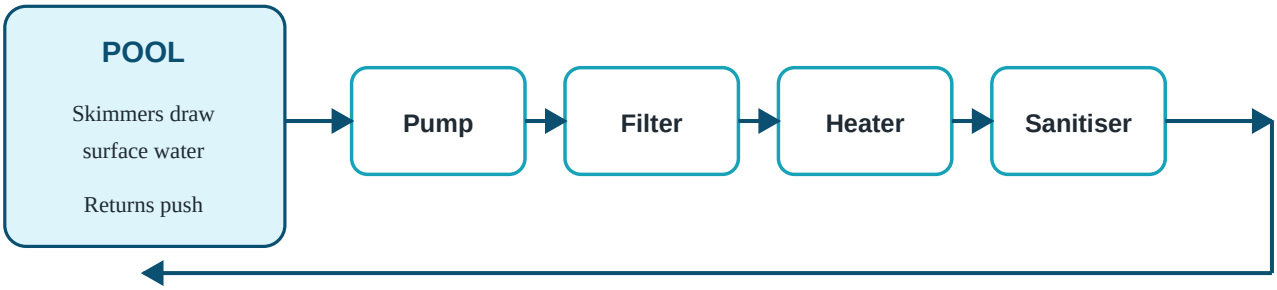
Do not move, stress or pressure test the joint until the cement has cured as recommended by the manufacturer.

Quality check: A neat bead around the joint is normal. Excessive cement runs, gaps or fittings not fully seated should be corrected before the system is commissioned.

6. Filtration Equipment - Step by Step

The equipment pad should be simple to understand. A clean layout makes maintenance easier and reduces the risk of incorrect operation.

Correct equipment order: Pump -> Filter -> Heater -> Sanitiser -> Return Jets



Use arrows on site to confirm flow direction before gluing final joints.

Step 1: Pump connection

Bring the skimmer manifold into the pump suction inlet. Keep the final suction run as short and straight as possible.

✓ Unions fitted near pump
✓ No air leaks on suction side
✓ Pump lid accessible

Step 2: Filter connection

Pipe the pump outlet into the filter inlet. Confirm the filter ports are correct before gluing.

✓ Correct inlet/outlet
✓ Drain access remains usable
✓ Valve handles accessible

Step 3: Heater and sanitiser

If fitted, install the heater after the filter and the sanitiser after the heater. This protects the equipment and ensures cleaner water reaches each unit.

✓ Flow direction arrows checked
✓ Straight pipe where required
✓ Unions fitted for servicing

7. Pipework Reference Photos

Reference photo: pipe routing and early connection planning.

Reference notes:

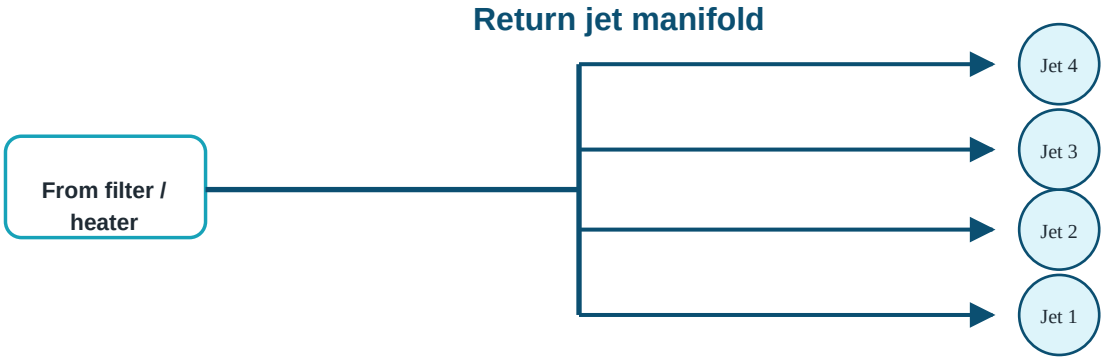
- Use the photo stage to check route, height and connection position.
- Replace any temporary positioning with final pressure-rated glue-fit pipework.
- Keep bends smooth to reduce flow restriction.

Reference photo: installed pipe route with bends and fittings.

Reference notes:

- Swept bends are preferable to tight elbows where space allows.
- Pipe should be supported so joints are not carrying weight.
- Check all fittings face the correct direction before cementing.

8. Return Jets - Step by Step



Feed the returns from a manifold. Keep branches balanced where possible and aim jets to create circulation.

Step 1: Plan the return route

The return line leaves the equipment and feeds the return jets. A manifold gives a neat and balanced way to split the flow.

✓ Main return line identified
✓ Branches planned before gluing
✓ Jets evenly spaced where possible

Step 2: Connect to return fittings

Dry-fit each return fitting connection before cementing. The pipe should meet the fitting squarely without side load.

✓ Pipe aligned square
✓ No twisting stress
✓ Correct fitting depth marked

Step 3: Aim the jets

Once running, adjust return eyeballs to create a gentle circular movement across the pool surface. This helps move debris towards the skimmers.

✓ Jets angled slightly downward
✓ Flow moves towards skimmers
✓ No dead spots at corners

Installer tip: If one return jet is much stronger than the others, use balancing valves or adjust branch lengths/design on future installations.

9. Final Checks Before Commissioning

Check	Pass criteria
Skimmer lines	Each line is secure, labelled and free from visible stress.
Glue-fit joints	All joints are fully seated with no gaps or loose fittings.
Valves	Handles are accessible and clearly relate to the correct line.
Equipment order	Pump -> Filter -> Heater -> Sanitiser -> Returns.
Return jets	Pipework is connected squarely and jets are ready for circulation adjustment.
Pressure test	Test the plumbing before normal operation and inspect every joint carefully.

This guide intentionally excludes backfilling and groundworks. Complete those stages using the separate backfilling guide after the plumbing has been inspected and tested.

Reference photo: final pipework checking stage.

Reference notes:

- Check every joint before running the system.
- Confirm pipes are supported and not under strain.
- Keep a record of line layout for future servicing.