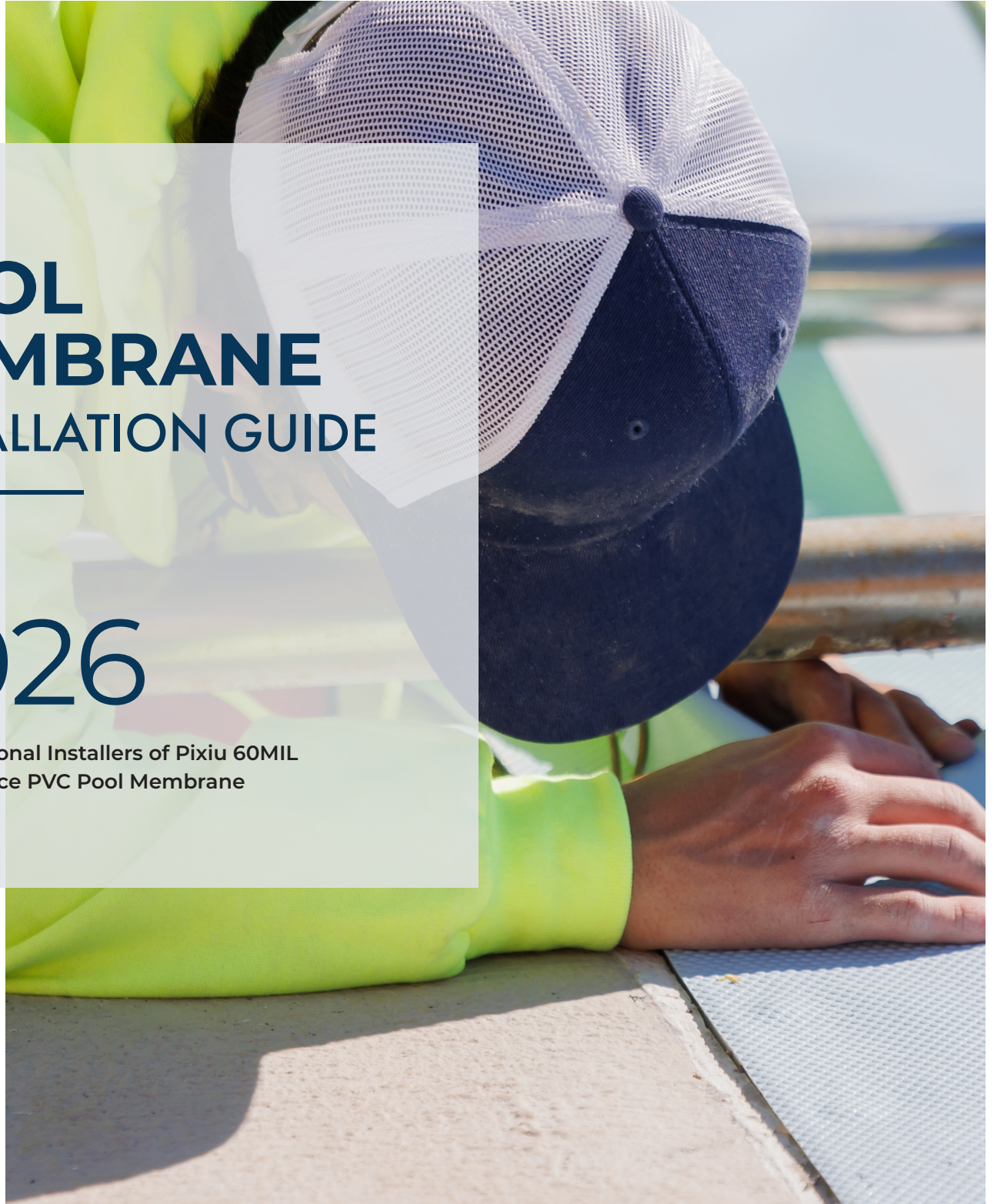




POOL MEMBRANE INSTALLATION GUIDE

2026

For Professional Installers of Pixiu 60MIL
Weld-In-Place PVC Pool Membrane



INSTALLATION TOOLS

TOOLS

- Hot-air hand welder
- Automatic welder (for long seams)
- Silicone pressure rollers
- Utility knives and scissors
- Tape measure
- Chalk line
- Angle grinder
- Vacuum
- Moisture meter
- Drill/driver
- Infrared thermometer
- Seam probe
- Stainless steel fasteners

DAILY TASKS

- Perform test welds.
- Maintain clean membrane surfaces.
- Maintain consistent seam overlaps.
- Protect completed work from damage.
- Maintain ongoing project documentation.

MATERIALS

- Pixiu Solutions 60MIL Reinforced PVC Membrane
- Geotextile Cushion Layer
- Approved adhesive
- PVC-coated termination profiles
- PVC flashing material
- Stainless steel hardware
- Approved sealant



STEP 1 – POOL & SITE REQUIREMENTS



Complete the following to ensure that the pool shell is structurally sound, clean, dry, and properly prepared before proceeding with installation.

Verify Compliance

Confirm that the pool complies with applicable codes, underground construction requirements, and accepted industry standards.

Inspect the Shell

Inspect the pool shell and repair all cracks, voids, and significant surface irregularities before installation.

Check Compatibility

Confirm that all fittings and components are compatible with reinforced PVC membrane systems before installation.

Pressure-Test Plumbing

Pressure-test all plumbing, drains, and fittings, and repair any leaks or structural deficiencies before proceeding.

Manage Groundwater

Install perimeter drainage or connect the pool to a soakaway drain with a water extraction pump to help prevent groundwater infiltration.

Remove Existing Liners

Completely remove any existing liner before installing the Pixiu reinforced PVC membrane.

Repair Tile & Components

Remove or repair broken, loose, or protruding tile and replace any unsuitable components before installation.

Clean the Surface

Clean pool walls and floors to remove loose dirt, debris, grease, and other contaminants before proceeding.

STEP 2 – INSTALL THE GEOTEXTILE CUSHION LAYER

The Geotextile Cushion layer provides a smooth installation surface and protects the reinforced PVC membrane from minor substrate irregularities and the growth of microorganisms between the membrane and the pool surface.



1. Establish Layout

Snap layout lines as required to guide proper placement of the cushion layer.

2. Apply Adhesive

Apply approved adhesive evenly in accordance with the manufacturer's recommendations.

3. Position Cushion Layer

Position the geotextile cushion layer in the adhesive without overlapping adjacent sections.

4. Eliminate Air Pockets

Roll the cushion layer firmly to ensure full contact and eliminate trapped air pockets.

5. Butt Seams

Butt adjacent cushion layer seams tightly together to maintain a continuous surface.

6. Trim Penetrations

Trim the cushion layer neatly around drains, fittings, and other penetrations.

7. Verify Adhesion

Verify complete adhesion of the cushion layer before proceeding with membrane installation.

8. Complete Coverage

Install the cushion layer continuously across all prepared substrate areas.

STEP 3 – INSTALL THE PIXIU PVC MEMBRANE



Allow membrane rolls to acclimate to ambient temperature before installation to ensure the material is easier to handle, position, and weld.

1. Measure & Cut

Measure and cut membrane panels according to the approved layout and required dimensions.

2. Dry-Fit Panels

Dry-fit each section to confirm proper fit and alignment before final positioning of the membrane panels.

3. Install Wall Panels

Install wall panels first, maintaining proper alignment and positioning throughout the installation.

4. Install Floor Panels

Install floor panels and verify smooth, properly aligned transitions between adjacent sections.

5. Maintain Seam Overlaps

Maintain consistent seam overlaps throughout the installation to ensure proper welding.

6. Minimize Seams

Minimize the total number of seams while maintaining the approved panel layout and proper positioning.

7. Position Without Tension

Keep the membrane flat and properly positioned without excessive tension or stretching.

8. Form Inside Corners

Fold inside corners neatly before welding to minimize material buildup and maintain a clean finish.

9. Fabricate Outside Corners

Fabricate outside corners using approved detailing techniques to ensure proper membrane fit and alignment.

10. Conform to Curves

Allow the membrane to conform naturally to convex and concave surfaces without stretching or forcing the material.

STEP 3 – INSTALL THE PIXIU PVC MEMBRANE cont'd.



Do not stretch or force the membrane to fit.



Verify proper alignment before proceeding with heat welding.

CORNERS & CURVED WALL SURFACES

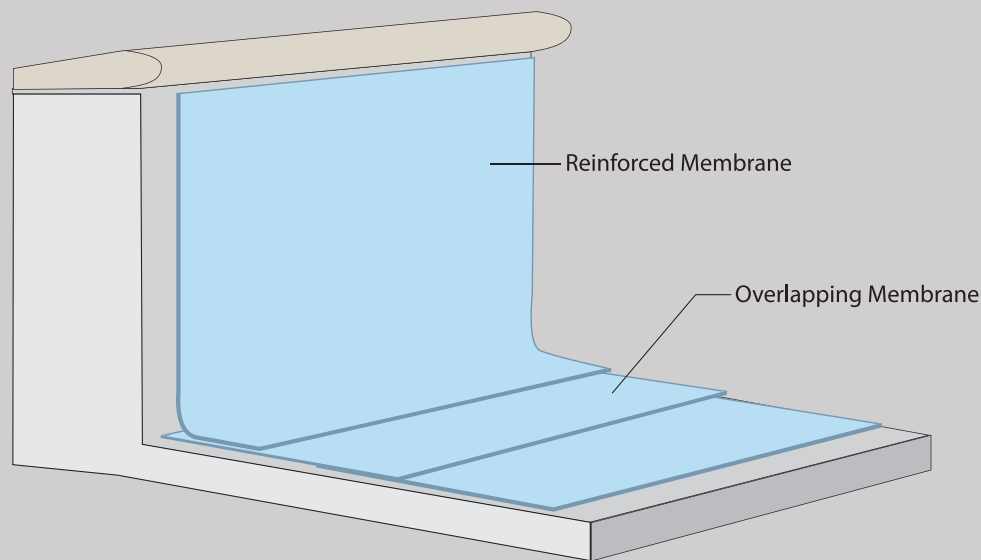


Figure 1.

APPLICATION ON A FLAT WALL

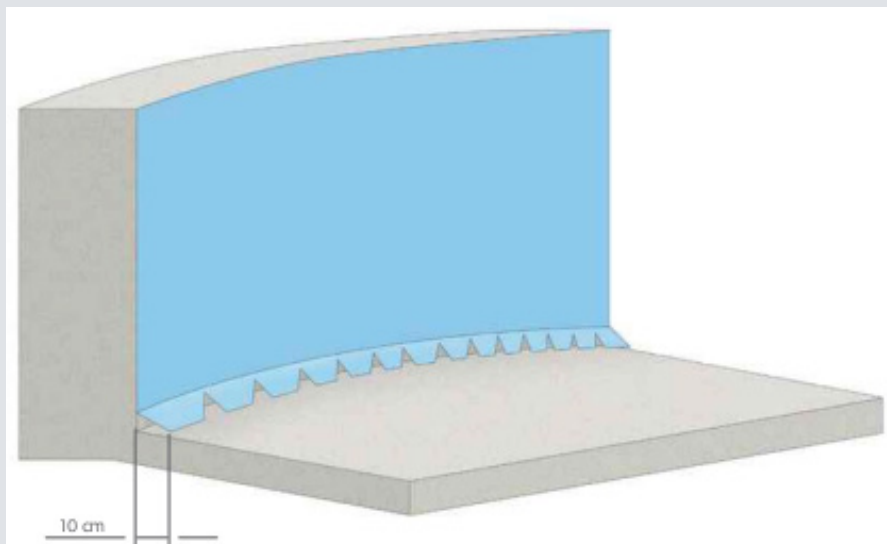


Figure 2.

APPLICATION ON A NON-FLAT WALL

STEP 4 – HEAT WELD ALL SEAMS



All completed seams must be continuous, fully fused, and free of voids, skips, or burn-through. (Use recommended welding temperatures.)

1. Clean Overlaps

Clean membrane overlap areas thoroughly to remove dust, moisture, and other contaminants.

2. Set Welding Temperature

Set the hot-air welder to the appropriate operating temperature before beginning the weld.

3. Perform Test Weld

Perform a test weld and verify weld quality before proceeding with production welding.

4. Position Nozzle

Position the welding nozzle correctly within the membrane overlap before beginning the weld.

5. Maintain Consistency

Maintain consistent travel speed and welding pressure throughout each seam.

6. Pressure-Roll Seam

Immediately follow the weld with a silicone pressure roller to ensure proper membrane fusion.

7. Inspect Each Weld

Allow each welded seams to cool naturally and completely before inspecting.

8. Probe Each Seam

Carefully inspect each seam to verify complete fusion and identify any voids, skips, or burn-through.

9. Repair Deficiencies

Repair any voids, discontinuities, or other weld deficiencies immediately.

10. Replace Damaged Membrane

Remove and replace damaged material when required to ensure a continuous, watertight installation.

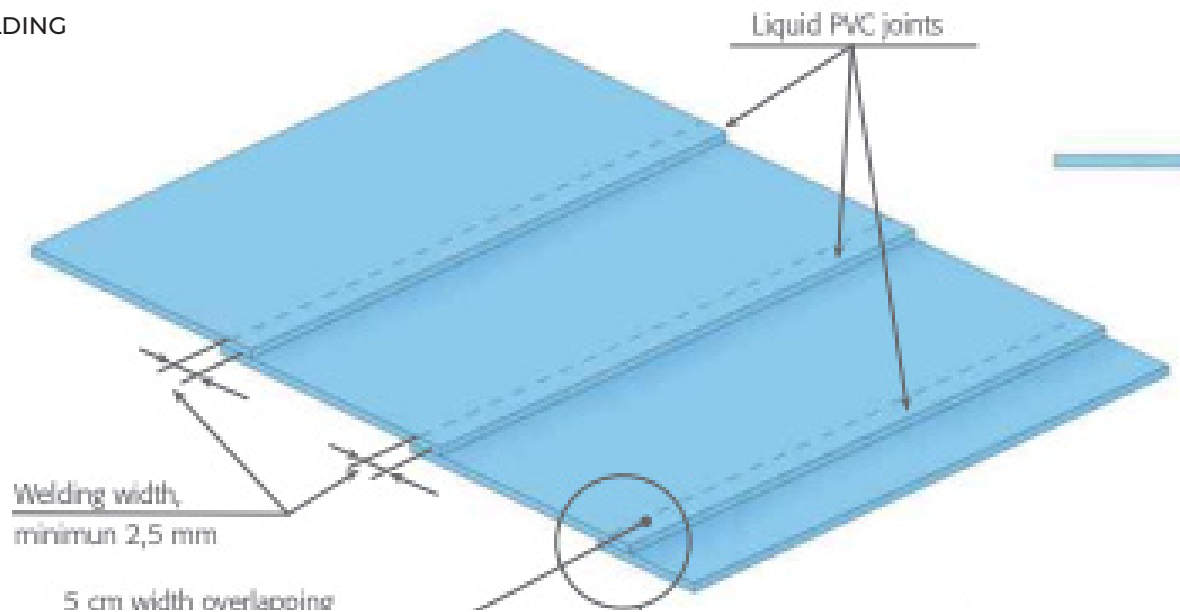
STEP 4 – HEAT WELD ALL SEAMS

cont'd.



Do not rely on visual appearance. Every welded seam must be inspected and verified after proper cooling.

Figure 3.
FINISHING AND CONFIRMATION
OF WELDING



STEP 5 – INSTALL PENETRATIONS & FITTINGS

Penetrations and fittings are critical waterproofing points and must be properly aligned, secured, and sealed to ensure a watertight installation.



1. Position Membrane

Position the fitting over the membrane and align it with the opening previously cut into the geotextile cushion layer beneath the membrane.

2. Apply Sealant

Apply approved sealant where required to provide a proper seal around the fitting.

3. Install Gasket

Position the gasket correctly to ensure a secure, watertight connection.

4. Secure Flange

Secure the flange using appropriate stainless steel fasteners to hold the membrane in place.

5. Tighten Evenly

Tighten fasteners evenly in a crisscross pattern without overtightening the connection.

6. Trim Opening

Trim the membrane opening only after the flange has been securely fastened in place.

STEP 6 – COMPLETE PERIMETER TERMINATION

Secure the membrane using approved PVC-coated termination profiles to prevent membrane movement, separation, and potential water intrusion.



1. Secure Termination Profiles

Install termination profiles securely along the perimeter according to the installation requirements.

2. Maintain Proper Spacing

Fasten profiles using the manufacturer-recommended fastener type and spacing.

3. Weld Membrane to Profile

Heat-weld the membrane securely to the installed termination profile.

4. Install Required Flashing

Install flashing where required to protect and seal perimeter transitions.

5. Seal Exposed Edges

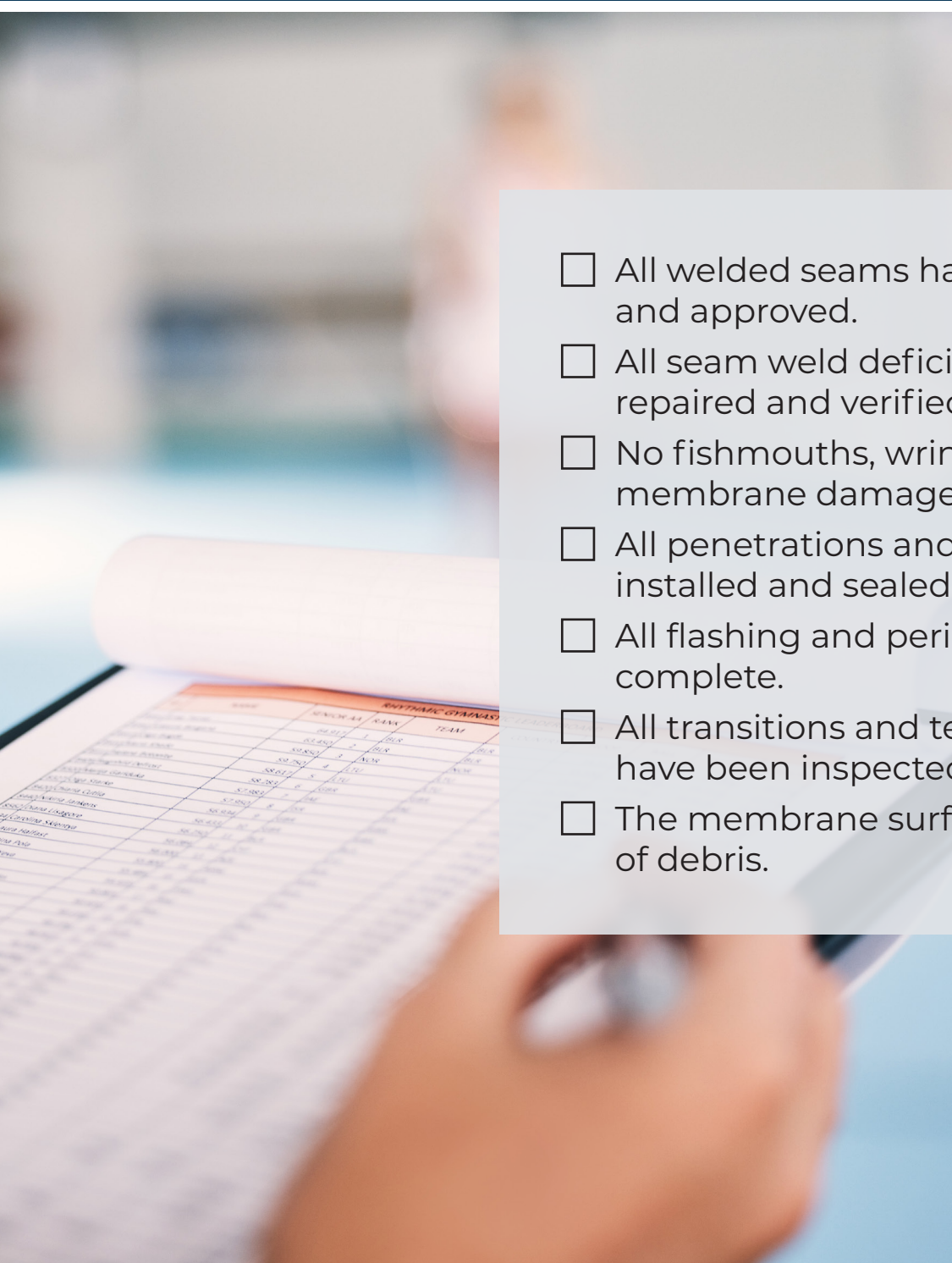
Seal exposed membrane edges where specified to ensure a secure, watertight finish.

6. Inspect All Transitions

Verify complete attachment, proper sealing, and smooth transitions at all perimeter connections.

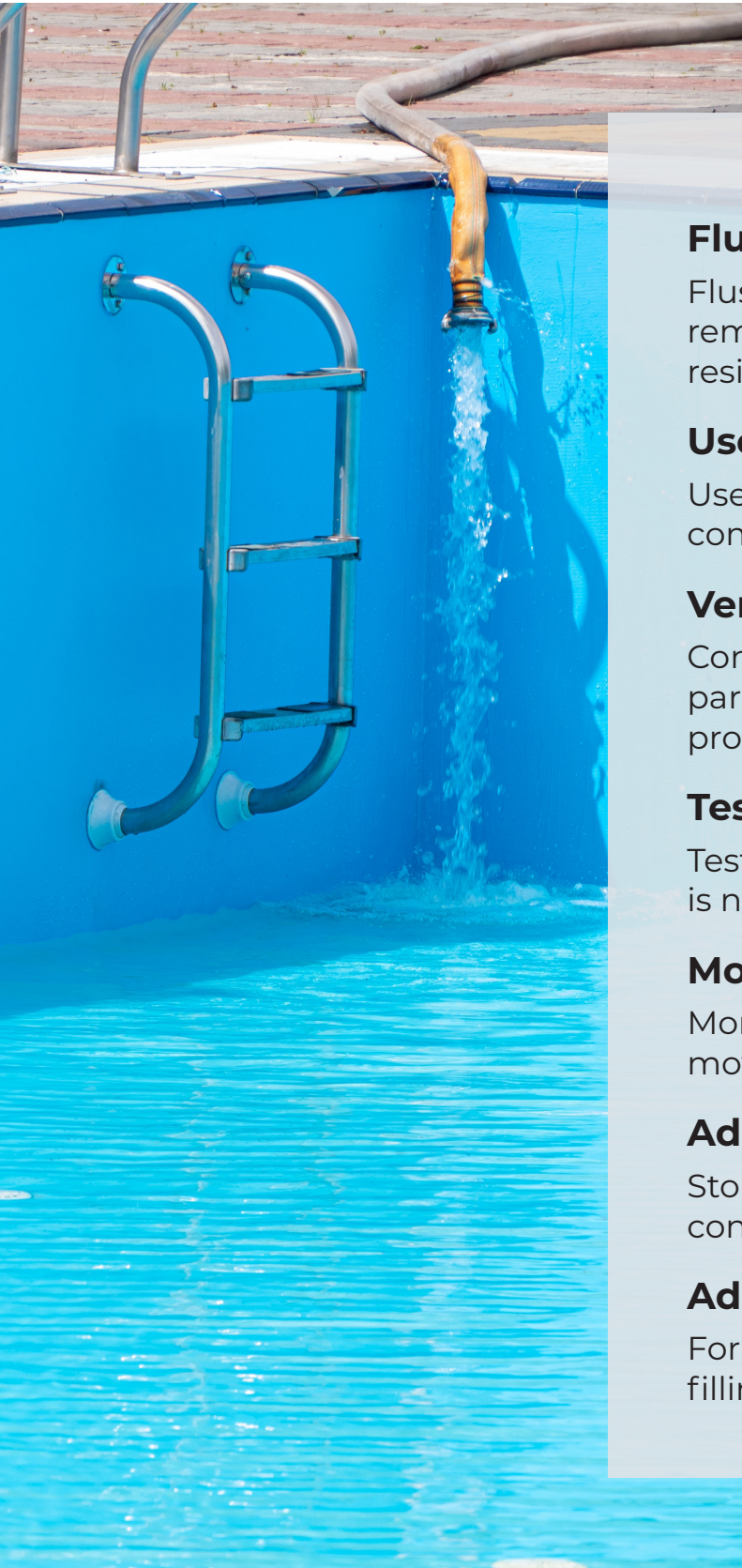
STEP 7 – FINAL INSPECTION CHECKLIST

Complete a thorough final inspection before introducing water into the pool; the final opportunity to identify and correct installation issues.

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- ☐ All welded seams have been inspected and approved.
 - ☐ All seam weld deficiencies have been repaired and verified.
 - ☐ No fishmouths, wrinkles, punctures, or membrane damage are present.
 - ☐ All penetrations and fittings are properly installed and sealed.
 - ☐ All flashing and perimeter details are complete.
 - ☐ All transitions and termination details have been inspected and approved.
 - ☐ The membrane surface is clean and free of debris.

STEP 8 – FILLING THE POOL

Begin filling the pool only after final inspection and approval, and after confirming the following.



Flush Plumbing Lines

Flush plumbing lines and conduits thoroughly to remove debris, contaminants, and construction residue.

Use Suitable Fill Water

Use clean, contaminant-free water that is compatible with pool treatment requirements.

Verify Water Chemistry

Confirm water chemistry meets recommended parameters before and throughout the filling process.

Test Non-Municipal Water

Test water quality before filling when the source is not a treated municipal supply.

Monitor the Membrane

Monitor the membrane during filling for movement, shifting, or other unusual conditions.

Address Issues Immediately

Stop and correct any issues immediately before continuing the filling or operation process.

Add Salt After Filling

For salt electrolysis systems, add salt only after filling is complete and water chemistry is verified.

TROUBLESHOOTING QUICK REFERENCE

The following guide identifies common installation issues, potential causes, and recommended corrective actions. Address any deficiencies before proceeding with subsequent installation steps.

INSTALLATION ISSUE	POSSIBLE CAUSE	CORRECTIVE ACTION
Weld separation or incomplete fusion	Incorrect welding temperature, travel speed, pressure, or contaminated overlap area	Verify settings, prepare overlap area, and re-weld affected section.
Fishmouths at seams	Improper membrane alignment or insufficient welding technique	Cut, repair, and re-weld affected area.
Wrinkles or membrane distortion	Improper positioning, excessive tension, or substrate irregularities	Correct membrane placement and address underlying cause.
Air pockets beneath membrane	Cushion layer issues, trapped air, or improper membrane placement	Identify affected area and correct before completion.
Leaking penetrations or fittings	Improper gasket placement, alignment, or sealing	Inspect fitting assembly and reseal or reinstall as required.
Loose perimeter termination	Improper fastening, welding, or detailing	Verify attachment and repair affected area.
Poor weld quality	Contamination, moisture, or inconsistent welding technique	Clean surface and re-weld affected section.