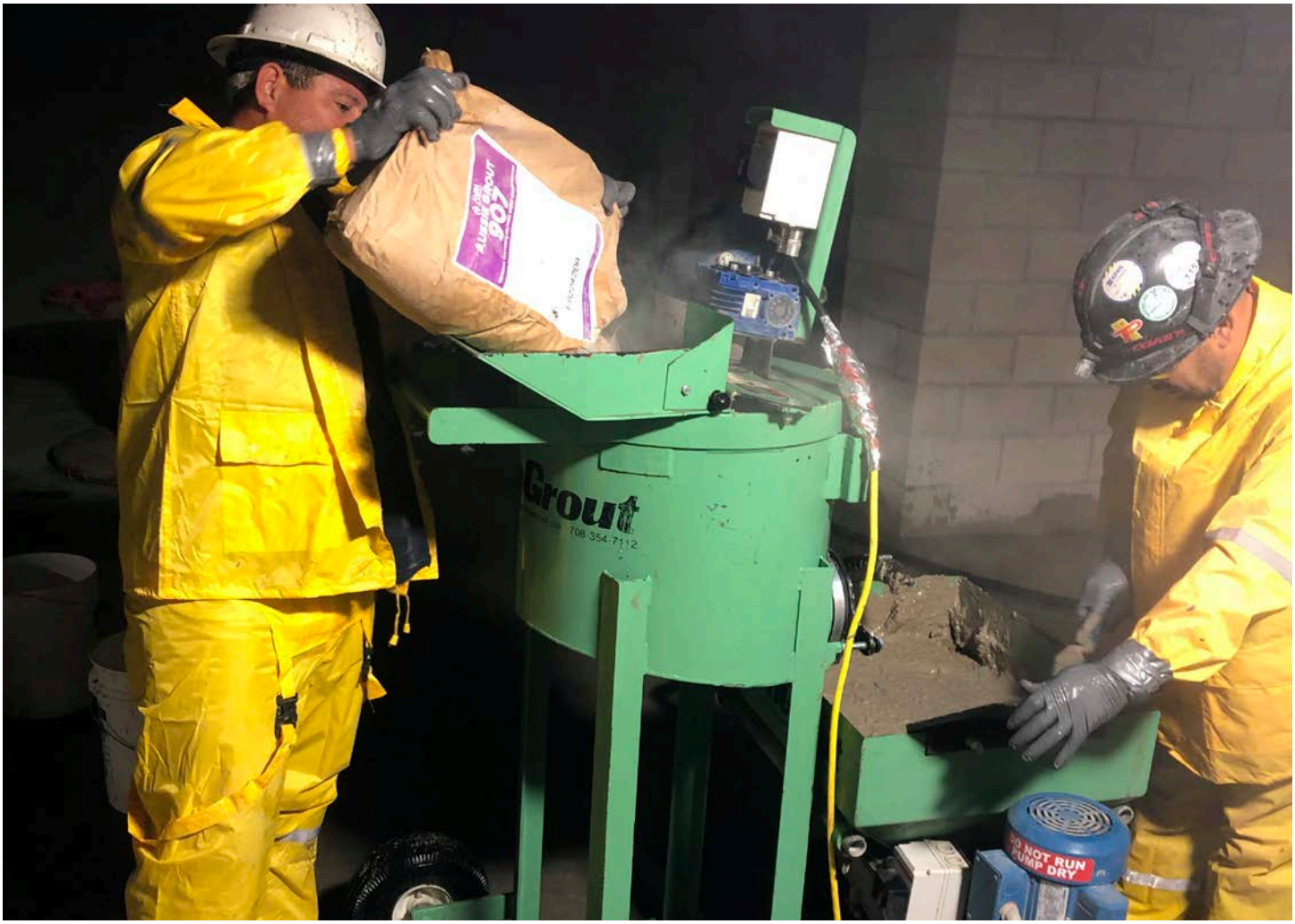
AVM INDUSTRIES INC



Aussie Grout 907 Injection Procedures for Sealing Water Ingress Through Concrete

DESCRIPTION

AVM Aussie Grout 907 is an easy mixing, organic-free, high-solids bentonite/polymer grout engineered to seal water intrusion in existing below-grade structures. Aussie Grout 907 is pumped to the exterior of the foundation wall where it sets into a dense gelatin state that forms a waterproofing barrier. Aussie Grout 907 can be used to seal leaks in concrete, CMU block, brick and stone foundations.

PREPARATION

1. **Buried Utilities:** Locate and mark all below-grade electrical, sewer and mechanical service lines prior to injection and port drilling operations.
2. **Water:** Access to clean water at pump and mixer
3. **Power Supply:** Ensure proper power supply to mixer and pump. Pump and mixer may be need separate power sources due to power draw.
4. **Equipment:** AVM recommends the use of a vertical paddle or horizontal ribbon blender type mixer with a progressive rotor stator cavity pump. ChemGrout's CG Easy-Flo series is recommended. *See Fig. 1.*

FIG. 1 – PUMP AND MIXER

INTERIOR INJECTION THROUGH WALL

Injection Port Layout & Drilling

1. Use a 1-1/2" diameter bit to drill a 6" deep starter hole in the concrete to set the injection packer. Continue drilling through the remaining thickness of the concrete with a 3/4" - 1" diameter drill bit. Once the hole is drilled, insert the injection packer with the red rubber gasket completely placed into the 1-1/2" hole section, then tighten and firmly set injection packer with the handle. install injection packer with ball valve in the closed position if hydrostatic conditions are present.
2. Layout and drill the bottom row of injection holes 4'-6' on center approximately 4"-6" above the floor slab. (port spacing may vary depending on site conditions and actual grout travel) *See Fig. 2.*
3. Drill the second row 4' up and offset 2' from the bottom row. Drill additional rows as required in the same pattern to create a diamond shape.

FIG. 2 – INJECTION PORT LAYOUT

Mixing Procedure

1. Add 14 gallons of clean water to the mixing unit and then add one bag of Aussie Grout 907 and mix for 5-8 minutes until an even "pancake batter" consistency is achieved.
2. If pumping is stopped the bypass valve should be opened to recirculate material through the pump to avoid clogging of the hose. Additional water may be added if material thickens up.

Injection Process

1. Begin grout injection at the lowest port and then work upwards. *See Fig. 3.*
2. Prior to pumping, open the ball valve of the injection packer and adjacent injection packers. Then pump Aussie Grout 907 through the injection packer until grout begins to flow out of adjacent injection packers.
   a. Note: In hydrostatic conditions adjacent packers should remain closed and periodically checked for grout flow
3. Move to adjacent packer and continue the same procedure working from bottom-to-top along the wall
4. Packers can typically be removed, and holes temporarily plugged within 30 minutes of pumping and used again to keep the process moving.
5. Within 12-24 hours holes injection holes can be patched with hydraulic cement or non-shrink grout.
6. Monitor injected areas for a minimum of 10 days to verify ingress has stopped prior to performing further injections.
7. Touch-up injections may be required if ingress persists to completely coat the wall.

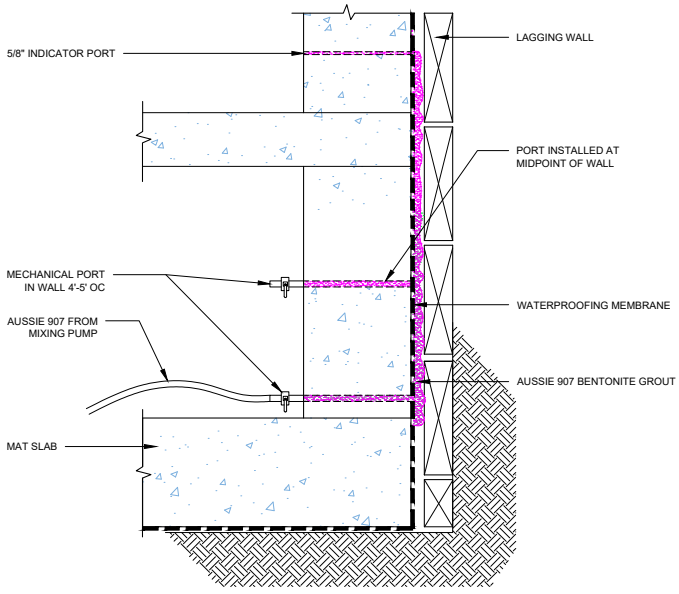


FIG. 3 – WALL / SLAB SECTION VIEW

SURFACE INJECTION FROM EXTERIOR OF BUILDING

Injection Process

1. Use a 3/4" diameter heavy wall steel pipe as injection pipe for Aussie Grout 907 placement. Cut the pipe tip at a 45° angle to aid in sinking of the injection pipe. *See Fig. 4 & 5.*
   a. A single pipe can be repeatedly inserted and removed, or numerous pipes can be inserted and then all injected through in sequence.

FIG. 4 – INJECTION PIPE

2. Insert injection pipe as close as possible to the foundation wall at 2-4' on center and push the pipe down to the top of the footing or the desired depth. Use a sacrificial rod if necessary, to pound down and create an opening for the injection rod. A long drill bit may also be used to start the first few feet of the injection hole.
   a. Grout may be pumped during installation of rod to aid in achieving required depth.
3. Begin pumping Aussie Grout 907 until it extrudes out at grade or until refusal of grout. Continue pumping grout while slowly removing injection pipe.
4. Move to adjacent injection pipe and continue the process along the desired area.
5. Monitor injected areas for a minimum of 10 days to verify ingress has stopped prior to performing further injections.
6. Touch-up injections may be required if ingress persists to completely coat the wall.

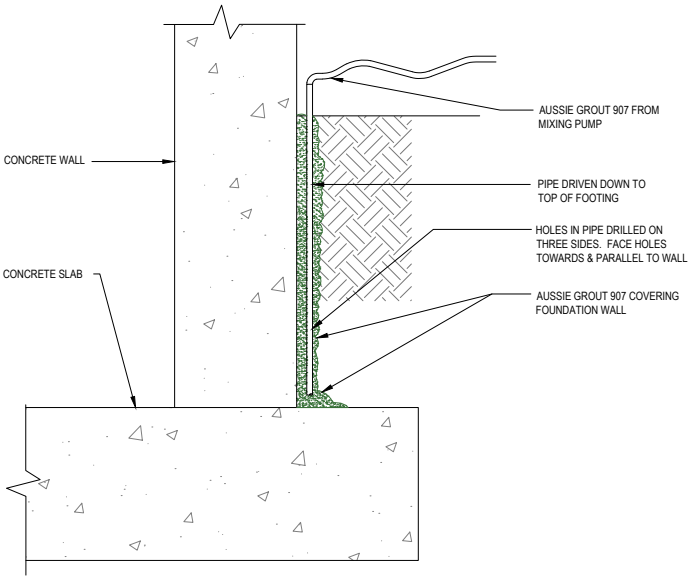


FIG. 5 – EXTERIOR WALL SECTION

CLEAN UP

Clean up all tools, mixer, and pump with water immediately after use.

EQUIPMENT

AVM recommends the use of ChemGrout's CG-EasyFlo series when installing Aussie Grout 907. The CG-EasyFlo series is a two-piece, wheel mounted, electric powered grout machine with the standard option of a 22 gallon mixing tank (34-Gal and 45-Gal tanks are also available). Please see below for pricing and part numbers:

Part Number	Description	Approximate Unit Price
CG-2C3ESW	Wheel mounted, single phase electric grout pump	$5,800.00
CG-MIX22ESW	Wheel Mounted, Standard 22-Gal Electric Grout Mixer	$3,020.00
32GRT1X25	Grout Hose 1" X 25' (AVM recommends two 25' hoses)	$420.00
03PROGA1INLINE300	In-Line Protected Pressure Gauge 0-300 PSI	$770.00
03FILLRITE807	Manual Water Meter Assembly (Gals or Liters)	$590.00
N/A	1" Bypass Assembly Hose	$279.00
N/A	1" Drive Packer	$200.00

* The power required is 2 120V, 15-amp electric circuits

Delivery typically ships 5-6 weeks after receipt of the Purchase Order. For more information or ordering, please visit **https://www.chemgrout.com/products/specialty-equipment/cg-easyflow-self-leveler-series/** or call Chemgrout at **708-354-7112**.