

# Chemical Grouting Poly-Foam and Permeation

SHALLOW SOIL AND STRUCTURAL STABILIZATION

---

## Strengthen Shallow Soils

---

Chemical Grouting is one of the best ways to remediate weak, shallow soils or to fill voids under weakened structures and slabs. Because severe structural damage can result from shallow voids, immediate and conclusive repair is extremely important. The impermeable formation that results from chemical grouting gives long-term stability to the treated area. Permeation grouting is generally paired with a poly-foam grouting in the case of settlement.

Chemical Grouting is an excellent solution for shallow voids that occur less than 10 feet deep from the surface. The Chemical Grouting process consists of a low pressure injection technique to fill narrow crevices, pores, and loose soils.

## Settlement Remediation for:

---

Foundations  
Pool Decks  
Seawalls  
Manholes  
Driveways  
Infrastructure



## Installation Procedure

---

The injection rods are penetrated through holes the size of a nickel. The rods are typically spaced in a 5 foot grid pattern over the treatment area. The expanding polyurethane foam is injected under high pressure as the rods are raised from the deepest point to the surface. Permeation grouting is done on a grid pattern in conjunction with a shallow foundation repair method such as poly-foam jacking. This is a low-disruption alternative to deep foundation installation below slab floors.

Helicon is also able to realign weakened foundations by gently raising the foundation upward, stabilizing while densifying loose soils. The degree of lift is a controlled and precise operation that requires experienced Chemical Grouting professionals.

# Chemical Grouting Applications



**Structures**



**Pool Decks**



**Seawalls**



**Manholes**