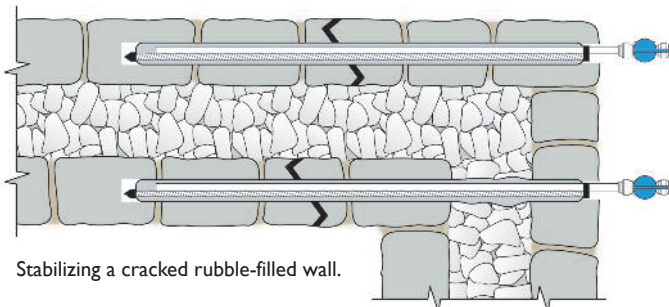


# SockFix

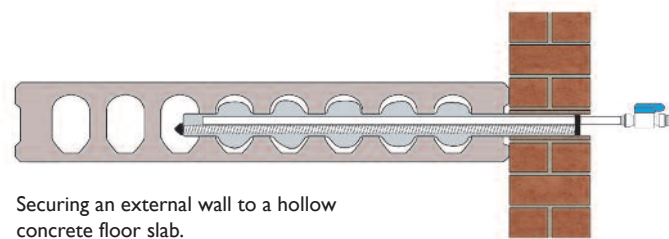
Mechanical grouted sock anchor system for stabilizing damaged masonry



Stitching a cracked solid wall.



Stabilizing a cracked rubble-filled wall.



Securing an external wall to a hollow concrete floor slab.

Over 100 standard repair specifications are available online, covering all common structural faults.

Relevant Repair Details: RDs CS15, CS16, RW07



For full Product Information, Case Studies and downloadable Repair Details go to:

[www.helifix.com/products/retrofit-products/sockfix](http://www.helifix.com/products/retrofit-products/sockfix)

## Applications

- Grout-filled sock combines with threaded bar in a composite action and expands to form a strong chemical/mechanical bond with the substrate
- For heavy duty, high load, applications
- For securing external walls to hollow concrete floor slabs
- For stitching cracked solid and multi-wythe walls
- For stabilizing rubble-filled walls
- For securing unstable parapet walls and arches
- Where high levels of performance are required in bending
- Where drilling lengths in excess of 1m are required

## Features

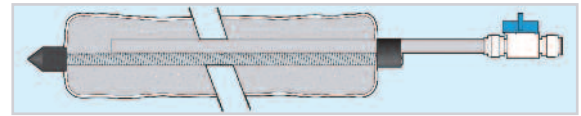
- Engineered project-specific solutions
- Cementitious anchor system forms part of the structure
- Fast, efficient, proven installation technique
- Stabilizes masonry and restores structural integrity
- Installed in the fabric of the structure providing permanent, non-disruptive, fully concealed repairs
- Retains the building's original appearance
- More economical and sustainable than demolition and rebuilding
- End cap options to suit a range of materials
- Shut off valve simplifies installation and prevents excessive grout use
- Post-tensioning is possible
- Full technical support

# Installation Procedures

1. Mark the position for the holes on the outer face of the wall.
2. Core drill clearance holes, to the specified diameter and depth, taking care to ensure the correct inclination and direction of the hole. Retain the entry hole core where possible.
3. Set up the pressure pot and compressor ready for installation.
4. Flush the pressure pot and associated components with fresh water.
5. Wet each SockFix and prime the injection tube with fresh water prior to installation.
6. Mix the SockFix Grout using a power mixer for a minimum of 3 minutes or until a smooth fluid consistency is achieved, then pour through a sieve into the pressure pot container.
7. Insert the SockFix into the drilled hole, ensuring that the sock is evenly distributed along its full length. Do not twist or force (any tears in the sock will lead to premature grout leakage).
8. If SockFix assembly is over 1000mm (36") in length it should be wet again once inserted.
9. Connect the SockFix valve with the pressure pot.
10. Inflate the SockFix sleeve with SockFix Grout from the pressure pot at a maximum of 3 bar pressure. In low strength masonry, inject under lower pressure to avoid damaging the masonry.



SockFix is installed through pre-drilled hole in structure.



Grout is pumped slowly, expanding the sock to fill the hole. Fluid permeates through the sock to provide a bond with the substrate while a solid aggregate bar/grout composite is formed in the sock.

11. When inflating, slowly rotate in the hole to assist the grout flow and to ensure that the bar is centralised on completion.
12. Maintain the pressure until the sock is fully inflated in the drilled hole and all the grout milk has been expelled. Close the shut off valve and disconnect from the pressure pot.
13. Once the grout has cured sufficiently to resist any residual pressure, cut off the end of the grout tube below the surface of the masonry.
14. Make good the entry hole, using the retained core where possible.

# Technical Specifications

| SOCKFIX                                |   |   |  |                       |
|--|---|---|--|-----------------------|
| Materials:                             | Grade 304 (1.4301) austenitic stainless steel threaded bar, heavy duty mesh fabric sleeve                         |   |  |                       |
| Material ultimate tensile stress:      | Bar: 750N/mm <sup>2</sup> (108.78 ksi)  |   |  |                       |
| Bar Diameter                           | C.S.A   | 0.2% Proof Load                         | Ultimate Tensile Load                    | Wt/m                  |
| 8mm (5/16" nominal)                    | 36.6mm <sup>2</sup> (0.057sq.in.)   | 450N/mm <sup>2</sup> (65.27 ksi)        | 26kN (5845 lbf)                          | 0.4072kg (0.8977 lbs) |
| 10mm (3/8" nominal)                    | 58.0mm <sup>2</sup> (0.090sq.in.)   | 450N/mm <sup>2</sup> (65.27 ksi)        | 40kN (8992 lbf)                          | 0.6362kg (1.4025 lbs) |
| 12mm (1/2" nominal)                    | 84.3mm <sup>2</sup> (0.131sq.in.)   | 450N/mm <sup>2</sup> (65.27 ksi)        | 59kN (13263 lbf)                         | 0.9161kg (2.0196 lbs) |
| 16mm (5/8" nominal)                    | 157.0mm <sup>2</sup> (0.243sq.in.)  | 450N/mm <sup>2</sup> (65.27 ksi)        | 109kN (24504 lbf)                        | 1.6286kg (3.5904 lbs) |
| Length to be used:                     | As specified  |   |  |                       |
| Standard lengths:                      | Up to 3m (9.84ft). Couplers used to form longer lengths   |   |  |                       |
| Diameter of clearance hole:            | As determined on site, depending on substrate   |   |  |                       |
| Depth of clearance hole:               | To be length of SockFix + a minimum of 1"   |   |  |                       |
| End cap choices:                       | Pointed as standard (effective guide and ideal for loose materials) or Flat washer (maximises anchor bond length) |   |  |                       |
| SOCKFIX GROUT                          |   |   |  |                       |
| Material:                              | Specially formulated cementitious Portland cement mix   |   |  |                       |
| Packaging:                             | 20kg bags (44 lbs)  |   |  |                       |
| Water content at 20°C:                 | By weight, 33% minimum to 35% maximum (6.6 to 7 liters (1.74 to 1.85 gallons) per 20kg (44 lbs) bag)              |   |  |                       |
| Yield:                                 | Approx. 13 liters of mixed material at water dose rate of 35% per 20kg bag  |   |  |                       |
| Storage & shelf life:                  | 6 months for unopened bag kept in dry conditions between 41°F and 95°F  |   |  |                       |
| COMPRESSIVE STRENGTH                   |   |   |  |                       |
| 1 Day: 18 N/mm <sup>2</sup> (2.61 ksi) | 3 Days: 40 N/mm <sup>2</sup> (5.80 ksi)   | 7 Days: 55 N/mm <sup>2</sup> (7.98 ksi) | 28 Days: 65 N/mm <sup>2</sup> (9.43 ksi) |                       |
| RECOMMENDED TOOLING                    |   |   |  |                       |
| For drilling:                          | Rotary Percussion / Wet Diamond / Dry Diamond   |   |  |                       |
| For mixing SockFix Grout:              | 3 jaw-chuck drill with mixing paddle or powered grout mixer. Large catering sieve                                 |   |  |                       |
| For inflating SockFix Anchors:         | Large 20 ltr (5.28 gallons) pressure pot. Maximum working pressure 110 psi.                                       |   |  |                       |



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