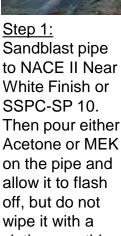
Typical Aquawrap[®] Install Steps For Carbon Steel Pipelines Onshore

- For external corrosion less than 80% wall loss and dents less than 6%. Grind gouges sharp edges smooth with 60% wall remaining. Not for cracks or internal corrosion.
- Get a repair calculation before installing **Aquawrap**® Phone: 817-240-6434.
- Install when pipe surface temps are between 40-200F and outside temp is greater than or equal to 33F.
- Sandblast pipe (NACE 2 Finish).
- Clean sandblasted pipe surface with Acetone or MEK.
- Fill-in ALL voids: (911,913,or 563) and primer:(BP-1,913,or 563) over ALL of the pipe repair area, as shown in the two photos on the next page in step 2. Allow primer to become tacky/sticky before applying Aquawrap over it.
- Ok to use (913 or 563) as the filler/primer, allow it to become tacky/sticky before applying Aquawrap over it.
- If using (BP-1 Primer), it is NOT a void filler: **Scrape** the bottom of both part A & B cans, which have solids settled at the bottom of each can, then stir them individually before mixing them together using a 1 to 1 ratio, then stir the ratios together thoroughly until one solid color and streak free).
- Apply Aquawrap[®] (G-05 material Circumferentially Wrap, G-03 material Spiral Wrap)
- Note: Never apply more than 16 layers of Aquawrap® at one time.
- Within a few minutes, apply three layers of the blue plastic stricture over **Aquawrap**[®], and in the same direction that the **Aquawrap**[®] was applied around the pipe, then perforate the plastic within a few minutes.
- Remove the blue plastic within 10-15 minutes, if applying more layers/multiple courses, or anytime one hour after your final install of the reinforcement blue plastic stricture.
- Aquawrap® is ready to be tied-into your adjacent/existing coating once your thumb nail cannot be pressed into it.
 Use your approved top coat or tape product. If leaving above ground, then top coat the entire repair with a UV coating within one week after the installation.
- If necessary, install metal marker bands, for future PIG/ ILI detection purposes, around the pipe areas located just outside each end of the **Aquawrap**® repair. Make certain the pipe is coated and jeep free of holidays before applying the metal marker bands around the coated pipe and coat over the metal bands too. The **Aquawrap**® itself is too thick to jeep.
- For quick 60 minute recoat purposes you can install **Aquawrap**® 3 layers and 2 layers over seams when butting up sections. Make sure to tie-in each end of the Aquawrap repair with your approved epoxy or tape coating.

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else.

















Step 2: Fill-in ALL voids and primer to NACE II Near over ALL of the pipe repair area, as shown above in the two photos. Allow primer to Then pour either become tacky/sticky before Acetone or MEK applying Aquawrap over it. Fillers: Gray 911,913,563 **Primers**: White BP-1, Gray 913, 563 Fillers/Primers: Gray 913 or cloth or anything 563

For few pits, fill with 911, once dry 5-7 min. roughen up with sandpaper, then primer. For many pits, fill/prime with 913 or 563, which sets-up slow enough to wrap over once tacky/sticky.

12.5"x30 8.5"x30' 12.5"x30' Cig Wrap Cig Wrap Cig Wrap 3 Layers 3 Layers 3 Layers 8.5"x30' 12.5"x30' 12.5"x30' 12.5"x30' Cig Wrap Cig Wrap Cig Wrap Cig Wrap 6 Layers 6 Layers 3 Layers 3 Layers

Step 3:

For Aquawrap® Calculation 817-240-6434 1.Aquawrap®G-05 circumferentially wrap straight pipe or shallow sweeping gradual bends. Apply the required number of layers directly on top of one another, but if more than 16 layers, then reinforce with the stricture blue plastic, perforate it, and then remove in 10-15 minutes, to apply more layers. For repairs longer than the roll's width, apply the same number of layers butted-up adjacent, and half of the layers over the seams, when using the same size roll width. When using a combination of 8" and 12" size roll widths. apply at least 3 layers on bottom and half or more of the required layers over seams to achieve required layers & length on the top/bottom, but offset seams, as shown in wrap drawing example for a 6 layer repair. 2. Aquawrap® G-03 spiral wrap odd shape pipe geometries: bends, elbows, tees, weld-o-lets. Use roll width that's equal to or less than the pipe's outside diameter. Example: 12.75" pipe OD, use 12" wide roll or less.

Step 4: **Immediately** after applying Aquawrap[®], wrap three layers of the blue stricture around it tightly, and perforate it so excess water will gas out as Co2.

Step 5:

Wait at least one hour to remove blue plastic. Once you cannot press your thumb nail into Aquawrap® then tie-it-into the adjacent coating with your approved epoxy or tape. If leaving above ground then top coat the entire Aquawrap® repair with your approved UV coating. If necessary, install metal marker bands, for future PIG/ ILI detection purposes, around the pipe areas located just outside each end of the Aquawrap® repair. Make certain the pipe is coated and jeep free of holidays before applying the metal marker bands around the coated pipe and coat over the metal bands too. The Aquawrap® itself is too thick to jeep.