Vendor Spotlight: Armorock Polymer Concrete

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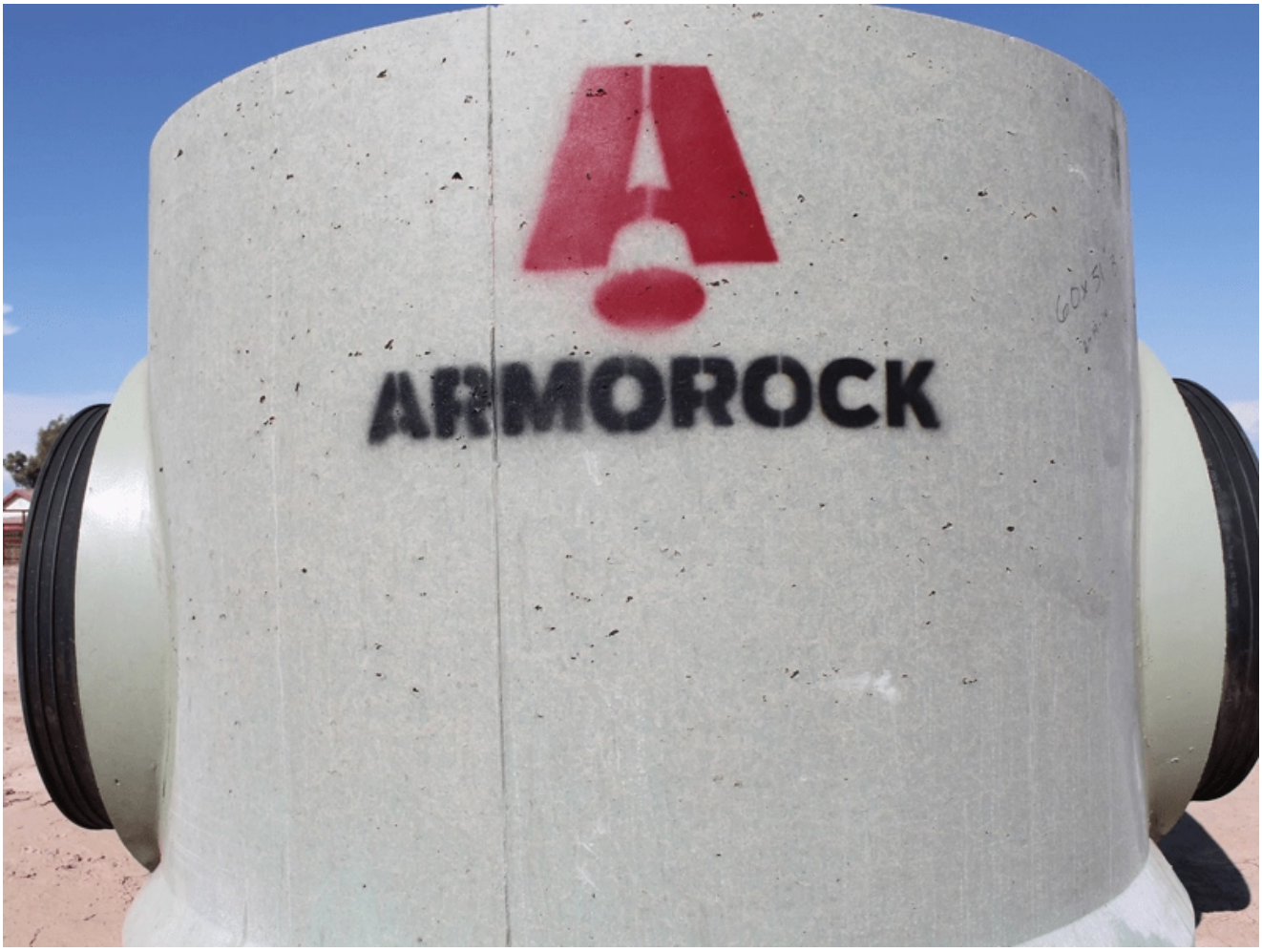

Romtec Utilities specializes in pumping systems and only pumping systems. Our narrow focus for engineering and manufacturing creates a very specialized expertise, and it also gives Romtec Utilities more experience with how pumping system components function across many project types. When it comes to handling H2S gas, polymer concrete is a great solution, and Armorock in Boulder City, Nevada is a great manufacturer of precast polymer concrete structures.

Precast polymer concrete is a similar structural material to traditional precast concrete. The difference between these materials is the cement binder. Traditional concrete uses Portland cement, but Armorock uses isophthalic polyester resin to bind with a mix with of sand and conventional aggregate. The result is a versatile structural component that can be molded into any precast shape that can be created from traditional concrete. Primarily, Romtec Utilities uses polymer concrete structures to serve as wet wells in wastewater and sewer pumping applications.

One issue that is persistent with many types of wastewater and sewer systems is the formation of hydrogen sulfide gas or H2S. This gas is very corrosive to traditional concrete, but the polymer components fabricated by Armorock are completely resistant to H2S corrosion. This resistance to corrosion is “third-party tested” and fully documented by Armorock, but if you need more assurances for this claim, Armorock offers a 50-year warranty against any damage from H2S corrosion. Because the structural calculations are similar to traditional concrete, this makes Armorock a great supplier for H2S resistant wells and vaults.

Romtec Utilities designs and supplies pump stations of all sizes and purposes, so our vendors need to have a versatile product selection to meet an ever-changing array of design criteria. Armorock can manufacture round wet wells forms from a 4-foot diameter up to a 12-foot diameter. This is a good size range for these components that not every precaster is capable of manufacturing. Additionally, Armorock can provide manholes for use in overall sewer systems beyond the scope of a Romtec Utilities lift station. Their product selection is a boon to municipalities that currently are plagued by H2S corrosion throughout a sewer system.

Aside from corrosion resistance, Armorock polymer concrete structures help Romtec Utilities customer in another way: lead times. Polymer concrete cures slightly faster than traditional concrete. This in and of itself is not always a huge time saver depending on manufacturing schedules and shipping. The big time savings come when a coating or liner is required on a concrete component. Coatings and liners typically require longer cure times when applied to traditional concrete, and some of them can only be applied after substantial drying periods. Since polymer concrete is resistance to most common forms of corrosion, these secondary cure times are never required. In a situation where a coating or liner is required in a tight timeline, an Armorock wet well could be submitted as an equal product with a much faster lead time.

Armorock began by branching off from a manhole precaster of traditional concrete that had been around since the 1950s. Sensing the changing tide of the industry, the Armorock founders made the move to polymer concrete structures, bringing over their expertise with the precasting process to a material that had traditionally been cost prohibitive. Today, precast polymer concrete is available at a much more competitive pricing and is thought to be cheaper when weighed against the maintenance, replacements, and odor control/chemical injection systems required for other materials.

Romtec Utilities use fiberglass, steel, and traditional concrete materials for all types of wet well applications, but precast polymer concrete is becoming a much accepted material in sewer and wastewater applications. Using vendors like Armorock makes our confidence in these materials just as high as they are with any other material. Offering a diverse array of options from reliable manufacturers across the country is a great asset for our clients because they will always get the best components in the materials that are suitable for their unique pumping requirements.