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Process Steps: PVC Butt-Fusion

Fusible C-900®, Fusible C-905® and FPVC™ pipe systems have distinctive properties which allow for full strength butt fusion joints. While other thermoplastic materials have been fused routinely, UGSI's fusion process incorporates a proprietary PVC formulation and a unique combination of heat, pressure and time that results in fully pressure rated butt fusion joints. UGSI holds the worldwide patents on PVC butt fusion.



Pipe ends are precisely and securely aligned in the fusion machine.



The fusion machine's dual cutting heads face and square both ends of the PVC pipe simultaneously.



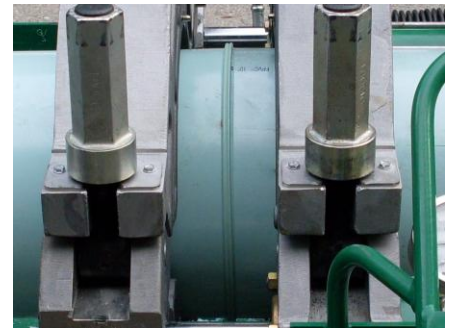
An electronically controlled heating element heats the ends of the pipe, forming a bead of fusible material.



After the pipe ends have been heated, allowing proper bead formation, the heater plate is removed, and the pipe ends are brought together quickly.



The joined pipe segments are held under pressure until the newly-formed joint cools sufficiently to ensure strength.



The fusion process creates an external bead in the pipe joint. Critical pipe fusion steps have been recorded in an electronic data-logger.

Underground Solutions™ (UGSI) provides infrastructure technologies for water/wastewater applications, and conduit for applications ranging from electrical to fiber optics. UGSI's **Fusible C-900®, Fusible C-905® and FPVC™** products contain a proprietary PVC formulation that, when combined with UGSI's patented fusion process, results in a monolithic, fully restrained, gasket-free, leak-free piping system. **Duraliner™** is a patented, close-fit pipeline renewal system creating a stand-alone structural liner.