

APPLICATION NOTE

ParaFlow™ Application Guidance



ParaFlow is a new non-contact area-velocity sensor used with the **ADS® TRITON+®** monitor.

ParaFlow Application Guidance

The most optimum applications for surface velocity technologies are shallow, fast flow conditions where the typical flow depth-to-diameter (d/D) ratio is less than 30% and corresponding flow velocities result in supercritical flow conditions ($Fr > 1$). Supercritical flow conditions have a “rougher” flow surface that more effectively reflects the surface velocity signal back to the sensor.

The least optimal applications for surface velocity technologies are slow velocities less than 1 ft/s (0.3 m/s) and result in subcritical flow conditions ($Fr < 1$). Subcritical flow conditions have a “smoother” flow surface that less effectively reflects the surface velocity signal back to the sensor. Surface velocity technologies can work in such conditions but may experience lower data quality. Under subcritical flow conditions, data quality may increase at lower d/D ratios and may decrease at higher d/D ratios.

The **ParaFlow** sensor is designed such that it may be mounted inside a manhole over the manhole channel or inside an adjacent sewer at the crown of the pipe. When the pipe diameter is less than or equal to 12-inches (300-mm), ADS recommends installing the ParaFlow sensor in the manhole over the manhole channel. When the pipe diameter is greater than 12-inches (300-mm), either installation method is applicable.



ParaFlow installed in a manhole with Topsyde Retrieval System



ParaFlow installed in a pipe with standard installation ring



Learn more about ParaFlow:
www.adsenv.com/paraflow



Access PRISM:
<https://www.adsprism.com>



Call: 800.633.7246
Email: adssales@idexcorp.com

