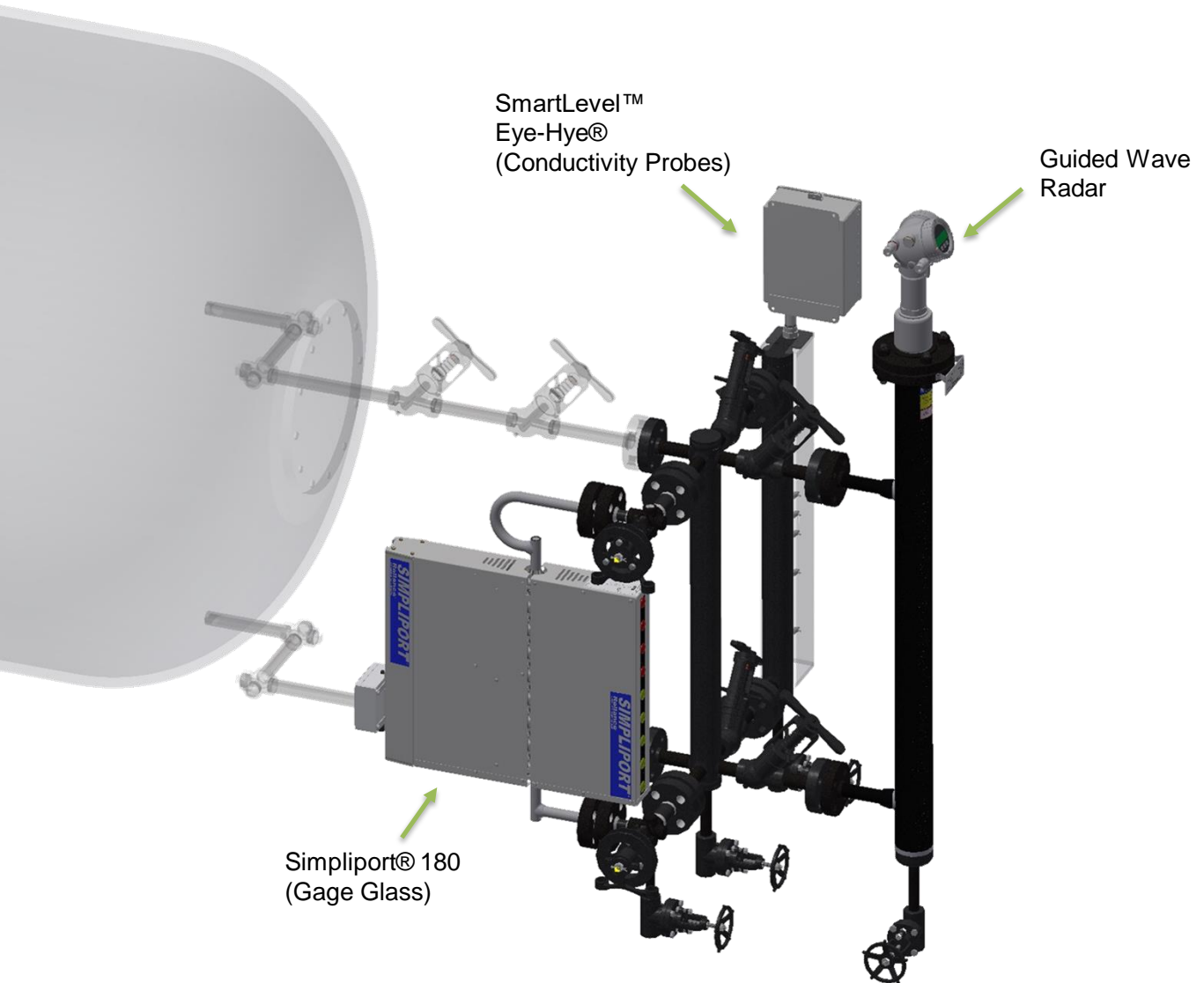


LevelMax Optima for Multi-Technology Boiler Level Monitoring



Reliance®
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LevelMax Optima Components

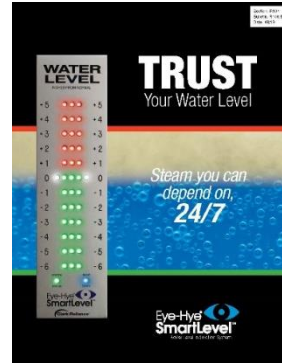
Eye-Hye® SmartLevel™ remote level indication systems provide prominent display with wide angle viewing lights for the water level, highlighting the normal level, indicating the operating status of the system, and providing patented a blow down indication to alert the operator when maintenance is required.

This system provides independent circuits for high reliability to detect specified levels over the operating range for level display, alarms, and trip functions. For more details, see our SmartLevel product bulletin and our animation.

Guided Wave Radar remote level indication systems provide a high reliability signal output to your boiler control system, with a continuous measurement over the full operating range. This technology eliminates the risk of freezing or restricted small size sensing lines associated with other types of level transmitters.

Simpliport® 180 provides a vivid display of the boiler in a ported type of water gage glass. This assembly provides a wide 180 degree viewing angle of the level. Our illuminator and viewing hood housings are constructed with rugged 316 stainless steel for your application. These gage glasses are available in a wide range of models to meet the indication range for your application.

For more details, see our Simpliport 180 product bulletin and our video.



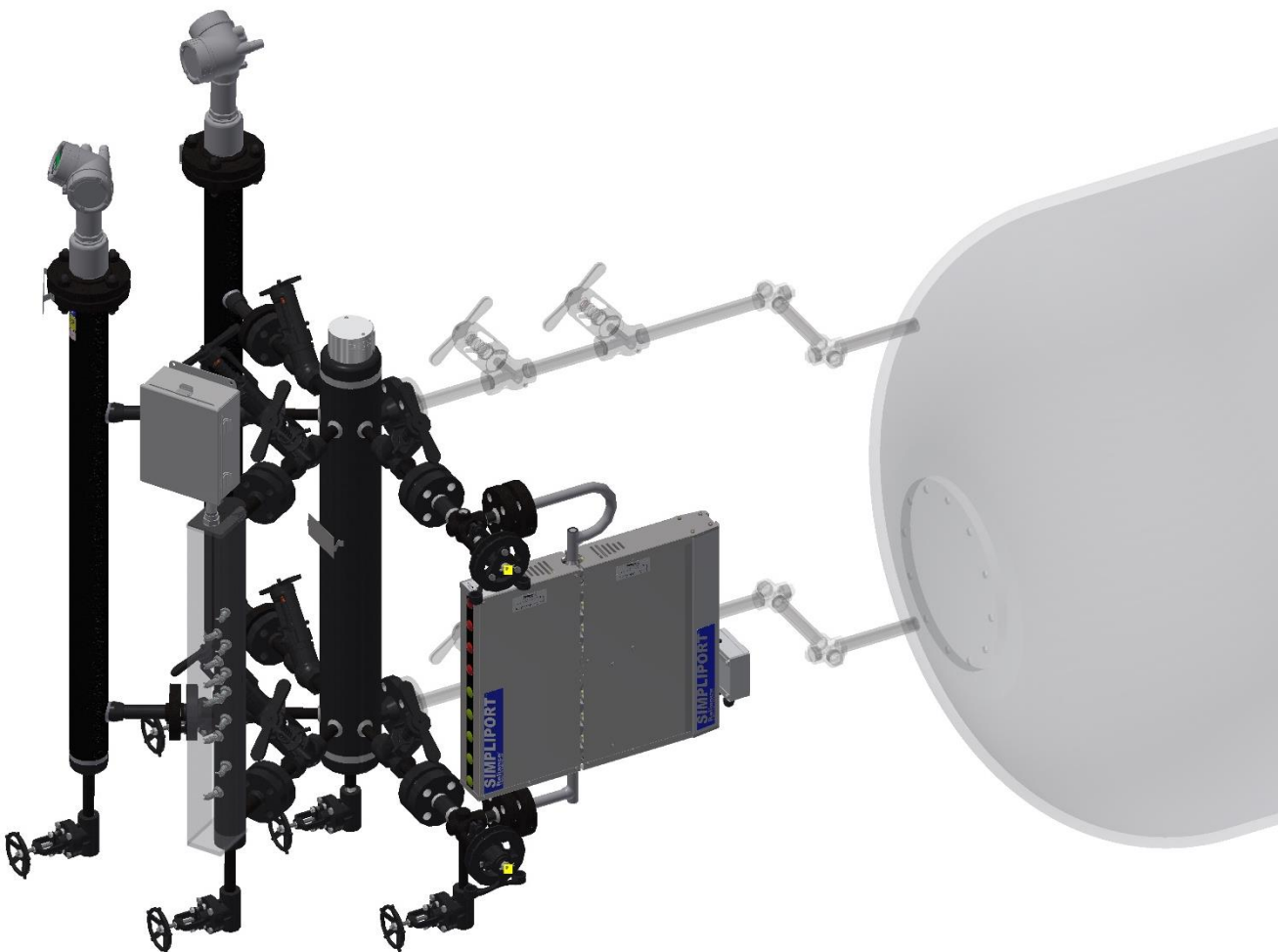
Animation



In Plant Video

Benefits of the LevelMax Optima System

- Provides local and remote drum level monitoring
- Maximum reliability with multiple technologies eliminates common mode failures
- Customize instrument locations and select the best position on bridle
- Consider assemblies for either end of the drum
- Eliminate expensive field fabrication with a ready-to-install bridle assembly
- Systems are available for ordinary and classified area locations
- This LevelMax system provides you with assurance for your boiler level and the safety of your personnel and plant equipment



Four Instrument Assembly

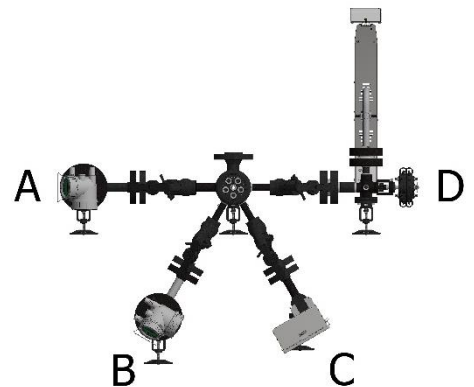
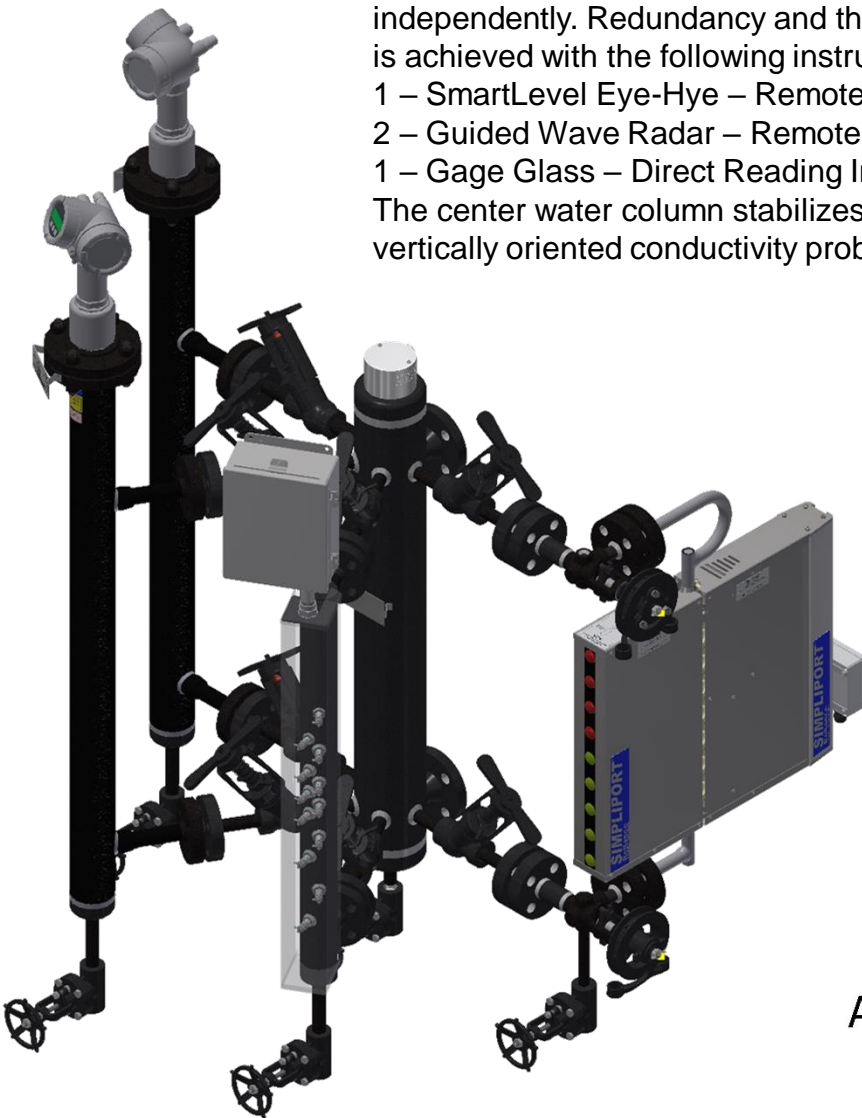
This assembly consists of four level indicators that each operate independently. Redundancy and the use of multiple technologies is achieved with the following instruments:

1 – SmartLevel Eye-Hye – Remote Indicator

2 – Guided Wave Radar – Remote Indicator

1 – Gage Glass – Direct Reading Indicator

The center water column stabilizes the level and may also contain vertically oriented conductivity probes for alarm or trip functions.



Select the orientation of each instrument among the 4 locations on this assembly plan view to best suit your boiler installation and the structure around it, while considering operator or inspector access to the drum.

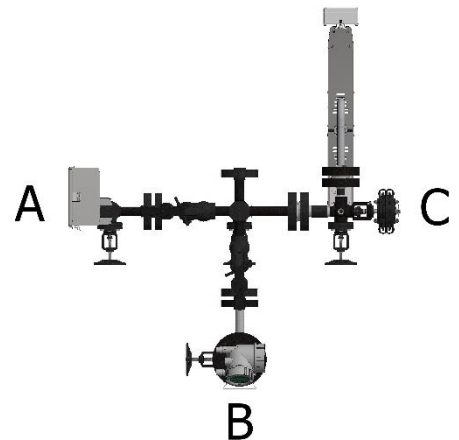
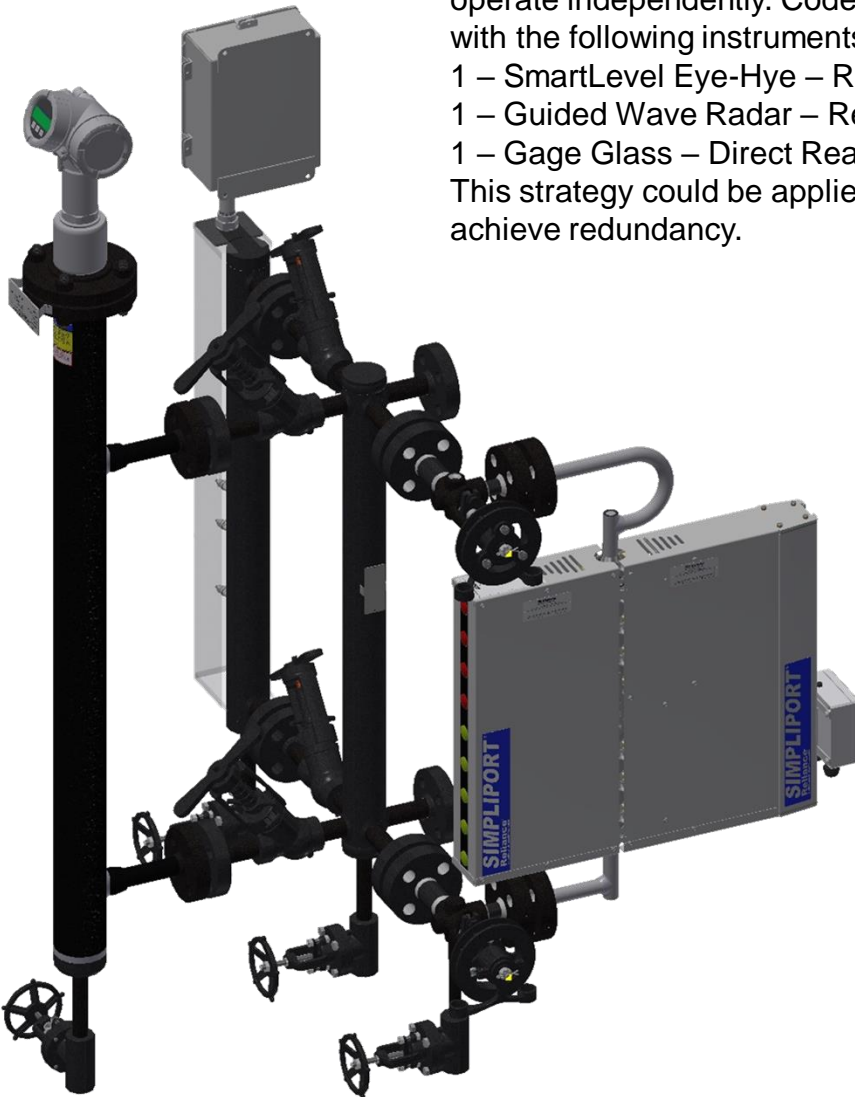
NOTE: Reference Order Selection Worksheet

Three Instrument Assembly

This assembly consists of three level indicators that each operate independently. Code minimum compliance is achieved with the following instruments:

- 1 – SmartLevel Eye-Hye – Remote Indicator
- 1 – Guided Wave Radar – Remote Indicator
- 1 – Gage Glass – Direct Reading Indicator

This strategy could be applied to both ends of the drum to achieve redundancy.



Select the orientation of each instrument among the 3 locations on this assembly plan view to best suit your boiler installation and the structure around it, while considering operator or inspector access to the drum.

NOTE: Reference Order Selection Worksheet

Two Instrument Assembly

- Provides local and remote indication in a compact and economical assembly
- Specify a SmartLevel system with either a Simpliport 180 or Flat Glass Gage with DuraStar Illumination for a level indication combination that provides a brilliant remote level indicator for the control area and a reliable gage glass for local confirmation of the water level
- Consider assemblies for either end of the drum
- Various orientations available to maximize access to access around the drum area
- This compact assembly provides an option to help meet code requirements with an assembly that attaches to one set of connections.
- The gage glass may be operated, as required by plant personnel
- Eliminate field fabrication and reduce the number of fields welds
- Thousands of these LevelMax assemblies with two instruments are installed around the world



LevelMax Optima is the Smart Choice for Boiler Level Applications

- LevelMax Optima offers the widest range of level indication combinations.
- Select the system that best meets or exceeds your specifications
- Consider systems with two, three, or four level instruments
- Plan ahead for your application with more than the code minimum number of level instruments for the boiler. Avoid having only the minimum number of required level indicators on the boiler.
- When you apply one or more LevelMax Assemblies, you can prevent operating in violation mode, by enabling an instrument to be isolated for maintenance, while still meeting code requirements with the minimum number of level indication instruments. ASME Boiler and Pressure Vessel Code requires two independent remote level indicators in the control area, when the gage glass is not visible to the operator where control actions are taken.

Specify a LevelMax Optima system from Clark-Reliance for any power boiler application designed to meet ASME requirements.

Contact a Reliance Applications Engineer for assistance with your application or specifications: RelianceAppEng@clark-reliance.com

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- Sight Flow Indicators
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- Boiler Safety Instruments

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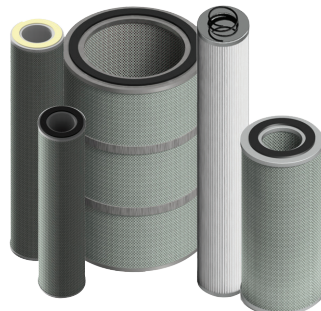
- Vacuum Dehydrators
- Varnish Removal Systems
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