

Technical Specifications

The QSR[®] Axial Scanner from Guided Ultrasonics Limited (GUL) combines with the QSR1[®] electronics pod to send guided waves axially along a pipe. The patented analysis technique permits quantitative measurement of the remaining wall of the inspected area without needing to get direct access to it. This means that a pipe can be reliably inspected where it is supported and where it penetrates a wall without needing to lift the pipe or damage the entrance.

TECHNICAL SPECIFICATION SUMMARY *(Subject to change)*



Application Areas		
Designed for	Inspecting supports without lifting the pipe. Inspecting wall penetrations.	
Inspection Capabilities		
Pipe Diameter ⁽¹⁾ ⁽²⁾	Manual Scan: 4", 18" to 36" [DN 100, 450-900]	Motorized Scan: 6" to 16" [DN 150-400]
Pipe Wall Thickness ⁽²⁾	6 mm to 15 mm [0.236" to 0.590"] ⁽²⁾	
Axial Inspection Range	5 cm to 50 cm [2" to 20"] from the sensor	
Pipe Orientation	Any	
Surface Preparation	Surface must be wiped clean of loose debris. Coatings thicker than 1 mm must be removed under the sensor. Sharp protruding features greater than 1 mm should be removed.	
Physical Characteristics		
Axial Length	39 cm [15.4"]	
Radial Height (Sensor) ⁽³⁾	Less than 28 mm [1.1"]	
Radial Height (Traction Unit) ⁽⁴⁾	Less than 85 mm [3.4"]	
Unit Weight	Less than 9 kg [20 lbs]	
Compatibility		
Electronics Compatibility	Used with a standard QSR1 Electronics Pod connected via a special adaptor Cable. ⁽⁵⁾	
Software Compatibility	WaveProQSR™ ⁽⁵⁾	
Machine Learning Compatibility	To be supported in QSR Studio.	
Analysis Method	Uses the frequency based, patented, QSR quantitative analysis method.	

KIT COMPONENTS

- Axial Sensor Unit
- Axial Traction Unit
- Traction Unit to QSR ePOD Adapter Cable
- Traction Unit to Sensor Harness
- Motorized Frames Set: 6", 8", 10", 12", 14", 16" ⁽⁶⁾
- Frame Release Mechanism
- Rugged Packing/Transport Case

⁽¹⁾ Pipes sizes are Nominal API 5L.

⁽²⁾ Support for further pipe sizes and pipe wall thicknesses is planned.

⁽³⁾ The Radial Height of the Sensor is the clearance required in the region that is being measured.

⁽⁴⁾ The Radial Height of the Traction Unit is the clearance required in at least one section of pipe.

⁽⁵⁾ The firmware on the QSR1[®] electronics pod and the version of WaveProQSR™ must be March 2022 or newer.

⁽⁶⁾ Frames for motorized scanning, which are diameter specific.