














# GUL Inflatable Rings – Application Areas

Guided Ultrasonics Ltd. (GUL) produces a range of application specific inflatable type transduction rings for the inspections of large size piping (typically between 6” and 36” in diameter). Larger sizes (greater than 36”) can be inspected by joining two rings of the same type together. There are a number of transducer module options for each type of ring. In most cases, each combination of ring and modules could be used in multiple applications but some may work better than the others. This comparison table provides guidance on the suitability of each ring type and modules for a variety of common applications. However, if in doubt, please contact us for further information.

RING TYPE									
	EFC		Compact®			HT		HD	
MODULE TYPE									
	STANDARD	ADJUSTABLE	EC-TRIO	EC-30	EC-42	HT	ADJUSTABLE	HD	ADJUSTABLE
<b>Application Areas</b>									
Generic Pipe	RECOMMENDED	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Typical Pipe Rack	SUITABLE	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
CUI	SUITABLE	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
High Temperature Pipe (100°C and 150°C)	SUITABLE	SUITABLE	SUITABLE	SUITABLE	SUITABLE	RECOMMENDED	SUITABLE	SUITABLE	SUITABLE
Extreme High Temperature Pipe (150°C to 350°C)	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE
Tight Access	SUITABLE	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED	SUITABLE	SUITABLE	SUITABLE	SUITABLE
Generally Corroded Pipe	SUITABLE	RECOMMENDED	RECOMMENDED	SUITABLE	SUITABLE	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Test under Supports on Clean Pipe	NOT SUITABLE	SUITABLE	SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	SUITABLE
Welded Supports	NOT SUITABLE	SUITABLE	SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	SUITABLE
Minimize Dead Zone	SUITABLE	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Pipe with Bitumen Coating	NOT SUITABLE	RECOMMENDED	RECOMMENDED	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Concrete Lined Pipe	NOT SUITABLE	RECOMMENDED	RECOMMENDED	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Soil Interface	SUITABLE	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Concrete Interface	NOT SUITABLE	RECOMMENDED	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Buried Pipe	NOT SUITABLE	RECOMMENDED	SUITABLE	NOT SUITABLE	SUITABLE	NOT SUITABLE	SUITABLE	NOT SUITABLE	RECOMMENDED

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## TECHNICAL SPECIFICATIONS SUMMARY (Subject to change)

RING TYPE	EFC		Compact®			HT		HD	
	STANDARD	ADJUSTABLE	EC-TRIO	EC-30	EC-42	HT	ADJUSTABLE	HD	ADJUSTABLE
<b>Available sizes</b>									
Nominal Pipe Sizes (NPS)	6" to 36"		6" to 36"			6" to 36"		8" to 30"	
<b>Module Features</b>									
Transducer Type	SD	ST	EC			HT	ST	HD	ST
Multiple Transducer Spacing	No	Yes	Yes	No	No	No	Yes	No	Yes
Operating Frequency Range	Standard	Very Low - High	Low - High	Standard	Low	Standard	Very Low - High	Very High	Very Low - High
Module Connection	MCX		USB			MCX		MCX	
Module Weight	179g	260g	174g	130g	130g	253g	260g	119g	260g
Quick Module Swapping	No		Yes			No		No	
<b>Ring Features</b>									
Closing Mechanism	Ratchet		Latch			Ratchet		Ratchet	
Interchangeable Modules	Yes								
Coupling Method	Pneumatic								
Pressure Sensor	No		No			Yes		Yes	
Orientation Sensor	No		Yes			Yes		Yes	
Temperature Sensor	No		Yes			Yes		Yes	
Ring Joining	Yes								
Automatic Module Recognition	No		Yes			No		No	
Lightweight Design	No		Yes			No		No	
<b>Physical Characteristics</b>									
Radial Clearance	63mm (2.5 inch)		38mm (1.5 inch)			63mm (2.5 inch)		63mm (2.5 inch)	
Axial Clearance	21.5cm (8.5 inch)		14cm (5.6 inch)			21.5cm (8.5 inch)		21.5cm (8.5 inch)	
Operating Temperature	-40°C to 150°C (-40°F to 302°F)		-40°C to 150°C (-40°F to 302°F)			-40°C to 350°C (-40°F to 662°F)		-40°C to 150°C (-40°F to 302°F)	
<b>Interface</b>									
Connectivity to Wavemaker®	Multi-channel Lemo® connection cable								
Auto Ring Recognition	Yes								
	12 <sup>1</sup> or 16		24			12 <sup>1</sup> or 16		12 <sup>1</sup> or 16	
Transduction System Compatibility	Wavemaker® G4 & G4mini (Base, Full)								

<sup>1</sup> – Only available for 6" size.