











INFLATABLE RINGS



TECHNICAL SPECIFICATIONS

GUL manufactures a range of inflatable transduction rings for screening large-diameter pipeline, typically from 6" to 36". Larger pipelines – up to 96" – can be inspected by joining two rings of the same type or by requesting a custom-sized ring. Each ring type supports various transducer module options, and while many combinations are versatile, some are better suited to specific applications. The comparison table provides guidance; contact GUL for further support if required.

RING TYPE											
	Compact®					EFC		HT		HD	
	    					 		 		 	
MODULE TYPE	EC-Trio	EC-HD	EC-30	EC-42	EC-LGL	Standard	Adjustable	HT	Adjustable	HD	Adjustable
Application Areas											
Generic Pipe	RECOMMENDED	SUITABLE	SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	RECOMMENDED	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Typical Pipe Rack	RECOMMENDED	SUITABLE	SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
CUI	RECOMMENDED	NOT SUITABLE	SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
High Temperature Pipe (100°C to 150°C) [212°F to 302°F]	SUITABLE	SUITABLE	SUITABLE	SUITABLE	PHSMA COMPLIANT	SUITABLE	SUITABLE	RECOMMENDED	SUITABLE	SUITABLE	SUITABLE
Extreme High Temperature Pipe (150°C to 350°C) [302°F to 662°F]	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	NOT SUITABLE
Tight Access	RECOMMENDED	RECOMMENDED	RECOMMENDED	RECOMMENDED	PHSMA COMPLIANT	SUITABLE	SUITABLE	SUITABLE	SUITABLE	SUITABLE	SUITABLE
Generally Corroded Pipe	RECOMMENDED	NOT SUITABLE	SUITABLE	SUITABLE	PHSMA COMPLIANT	SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Test under Supports on Clean Pipe	SUITABLE	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	NOT SUITABLE	SUITABLE	SUITABLE	SUITABLE	RECOMMENDED	SUITABLE
Welded Supports	SUITABLE	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	NOT SUITABLE	SUITABLE	SUITABLE	SUITABLE	RECOMMENDED	SUITABLE
Minimize Dead Zone	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Pipe with Bitumen Coating	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	RECOMMENDED	PHSMA COMPLIANT	NOT SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Concrete Lined Pipe	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	RECOMMENDED	PHSMA COMPLIANT	NOT SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	NOT SUITABLE	RECOMMENDED
Soil Interface	RECOMMENDED	RECOMMENDED	SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Concrete Interface	RECOMMENDED	RECOMMENDED	NOT SUITABLE	NOT SUITABLE	PHSMA COMPLIANT	NOT SUITABLE	RECOMMENDED	SUITABLE	RECOMMENDED	RECOMMENDED	RECOMMENDED
Buried Pipe	SUITABLE	NOT SUITABLE	NOT SUITABLE	SUITABLE	PHSMA COMPLIANT	NOT SUITABLE	RECOMMENDED	SUITABLE	SUITABLE	NOT SUITABLE	RECOMMENDED

TECHNICAL SPECIFICATION SUMMARY

(Subject to change)

Ring Type	Compact®					EFC		HT		HD	
Module Type	EC-Trio	EC-HD	EC-30	EC-42	EC-LGL	Standard	Adjustable	HT	Adjustable	HD	Adjustable
Available sizes											
Nominal Pipe Sizes (NPS)	5" to 40" (DN 125 to 900)					6" to 36" (DN 150 to 900)		6" to 36" (DN 150 to 900)		6" to 36" (DN 150 to 900)	
Module Features											
Transducer Type	EC					SD	ST	HT	ST	HD	ST
Wave Mode	Torsional				Longitudinal	Torsional		Torsional		Torsional	
Multiple Transducer Spacing	Yes	No	No	No	Yes	No	Yes	No	Yes	No	Yes
Operating Frequency Range	Low - High	Very High	Standard	Low	Standard	Standard	Very Low - High	Standard	Very Low - High	Very High	Very Low - High
Module Connection	USB					MCX		MCX		MCX	
Module Weight	174g	160g	130g	130g	174g	179g	260g	253g	260g	119g	260g
Quick Module Swapping	Yes					No	Yes	No	Yes	No	Yes
Ring Features											
Closing Mechanism	Latch					Ratchet		Ratchet		Ratchet	
Interchangeable Modules	Yes										
Coupling Method	Pneumatic										
Pressure Sensor	No					No		Yes		Yes	
Orientation Sensor	Yes					No		Yes		Yes	
Temperature Sensor	Yes					No		Yes		Yes	
Pressure Sensor	No					No		Yes		Yes	
Ring Joining	Yes										
Automatic Module Recognition	Yes					No		No		No	
Lightweight Design	Yes					No		No		No	
Physical Characteristics											
Radial Clearance	38mm [1.5"]					63mm [2.5"]		63mm [2.5"]		63mm [2.5"]	
Axial Clearance	14cm [5.6"]					21.5cm [8.5"]		21.5cm [8.5"]		21.5cm [8.5"]	
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]	-40°C to 150°C [-40°F to 302°F]	
Interface											
Connectivity to Wavemaker®	Multi-channel Lemo® connection cable										
Auto Ring Recognition	Yes										
Number of Channels	24	12 ⁽¹⁾ or 16			24	12 ⁽¹⁾ or 16		12 ⁽¹⁾ or 16		12 ⁽¹⁾ or 16	
System Compatibility	Wavemaker® G5, Wavemaker® G4 ^{mini} or Wavemaker® G4 ⁽²⁾										

(1) Only available for 6" size.

(2) EC-HD & HD Modules require either a Wavemaker® G5, a Wavemaker® G4^{mini} Full, a Wavemaker® G4^{mini} Base with Plant package, or a Wavemaker® G4 with the MF option.

