



**Technical  
Specifications**

# LYNCS

**Advanced. Robust. Versatile.**

One high-performance tool for both corrosion mapping and weld inspection, featuring a modular scanner capable of accommodating up to six probes for ferrous and non-ferrous components

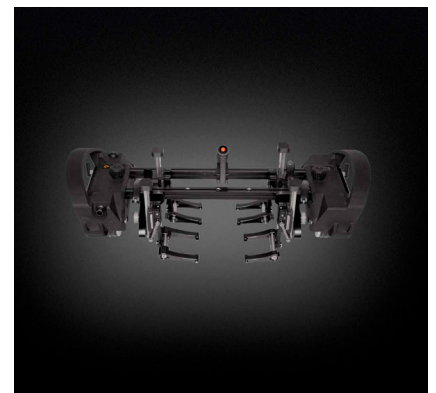
## WELD INSPECTION & CORROSION MAPPING SCANNER

LYNCS™ is an advanced modular ultrasonic inspection scanner that has been designed by experts to provide TFM, Phased Array corrosion mapping and weld integrity assessment. It is the first truly versatile system that allows users to interchange between weld inspection and advanced corrosion mapping in less than 1 minute.

Features:

- Inspect assets circumferentially from 100mm (4in) diameter.
- Inspect assets longitudinally from 50mm (2in) diameter.
- Quick and easy wedge setup.
- Easily switch from corrosion mapping to weld inspection.
- Low profile for tightly spaced pipe racks 110mm (4.3in).
- Magnetic wheel to adhere to the inspection surface.
- Seamless integration with the Gekko and Mantis.
- Easily apply brakes to stop slippages.
- Onboard scanner controls for pause and index.
- Scalable solution for a variety of applications.
- Lightweight, ideal for rope access and tight spaces.

**Designed by Eddyfi's experts to provide Phased Array (PAUT) corrosion mapping, PAUT/TFM/TOFD weld integrity assessment, flange joint, and corrosion under pipe support (CUPS) inspection.**



## LYNCS PACKAGES

Quickly switching from weld inspection mode to corrosion mapping mode ensures maximum utilization and reduced equipment mobilization

### LYNCS WI - WELD INSPECTION CONFIGURATION

LYNCS WI weld inspection configuration can accommodate up to 6 PA and/or TOFD probes and has a dual-bar structure for enhanced stability and probe placement accuracy. It is a toolless scanner with an interchangeable design, making it ideally suited to all weld inspection configurations.

Applications:

- Fabrication and in-service circumferential welds from
- Pressure vessel circumferential welds
- Pipe to elbow/feature welds
- Flange joint inspection
- Storage tank/silo welds
- Crack detection, sizing & monitoring
- Corrosion/erosion detection & sizing

### LYNCS CM - CORROSION MAPPING CONFIGURATION

LYNCS CM corrosion mapping arrangement is ideally suited to vessel and pipework inspection. It has an extremely low profile and lightweight design, making it the most suitable option for rope access deployment and heavily congested pipework.

Applications:

- Circumferential scanning from 100mm (4in) to flat plate
- 500mm (20in) scan width
- 100mm (4in) to flat plate
- Vessel shell
- Storage, spherical, and silo tank shell
- Marine vessel hull
- Tank floors and ship decks
- Pre-drilled notches at 50mm & 2in spacing for improved inspection efficiency
- Other critical assets



Figure 1: LYNCS WI Weld Inspection Scanner.



Figure 2: LYNCS CM Corrosion Mapping Scanner.

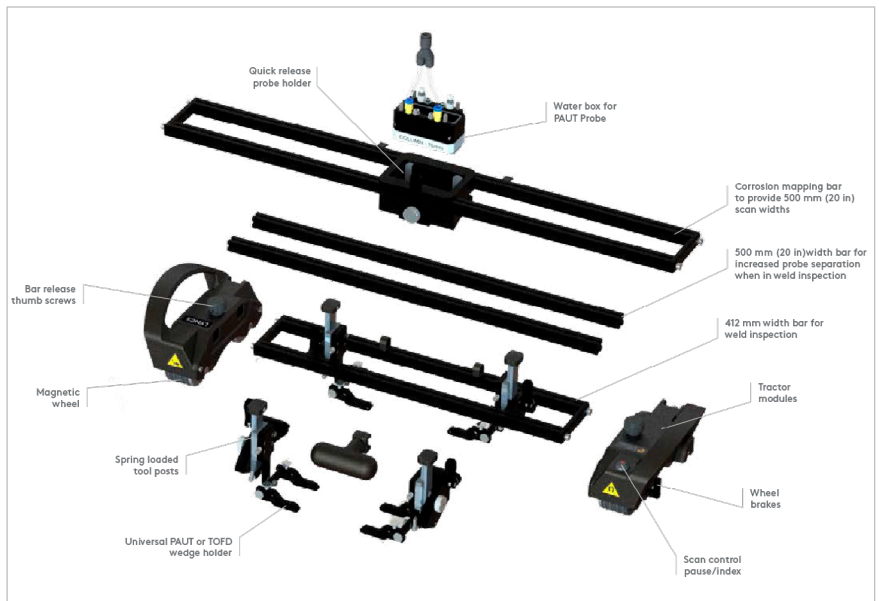


Figure 3: Annotated breakdown of LYNCS, showcasing its key components for advanced corrosion mapping and weld inspection

## BOLT-ON OPTIONS

Bolt-on options are available for weld inspection and corrosion mapping of non-ferrous piping

### LYNCS CHAIN

LYNCS Chain is a bolt-on option for the LYNCS WI or LYNCS CM providing fast and precise inspection of pipes ranging from 100mm (4in) to 812mm (32in). The LYNCS chain increases weld and corrosion inspection capabilities on non-ferrous piping such as stainless steel and High-density polyethylene (HDPE).

Features:

- Incredible alignment
- Quick-release mechanism
- Mount up to 6 PAUT/TOFD probes
- Onboard controls increment or stitch data
- Fully flexible setup – Hook in, hook out links
- Magnetic wheels
- Quick-release brakes
- Dual bar
- 3-point chain adjustment
- Quick-release probe mechanism

### LYNCS AXIAL

LYNCS AXIAL is a bolt-on option for the LYNCS WI. The design provides rapid and absolute adjustment through diameter ranges starting at 50mm (2in) up to flat plate for longitudinal inspection. In addition, the LYNCS AXIAL can be inverted for internal longitudinal weld inspection starting at 355mm (14in) diameter.

Features:

- Easy to use, tool-less design
- Mount up to 4 PAUT/TOFD probes
- Onboard controls for start/stop scan
- Quick-release brakes
- Universal tool post to fit a range of wedges
- Dual bar



Figure 4: LYNCS Chain.

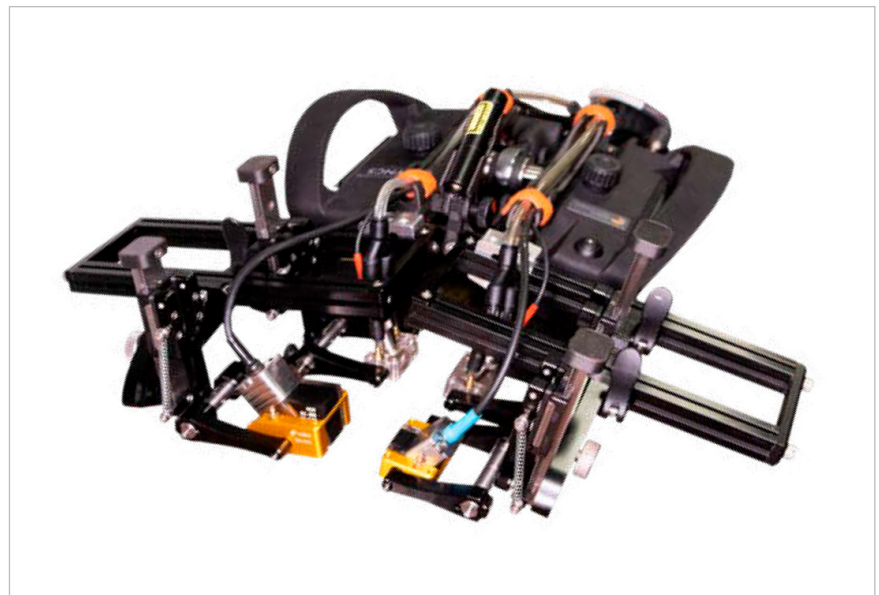


Figure 5: LYNCS AXIAL.

# SPECIFICATIONS

## LYNCS WI - WELD INSPECTION CONFIGURATION

Dimensions (w x d x h)	Short bar	255 x 198 x 109mm (10 x 7.8 x 4.3in)
	Standard bar	487 x 198 x 109mm (19.2 x 7.8 x 4.3in)
	Medium bar	575 x 198 x 109mm (22.6 x 7.8 x 4.3in)
Bar width options	Short	180mm (7in)
	Standard	412mm (16.2in)
	Medium	500mm (19.7in)
Circumferential scanning range	External	100mm (4in) to flat plate
	Internal	864mm (34in) to flat plate
Maximum width of tool posts		65mm (2.5in)
Maximum number of tool posts		6
Tool posts compatibility		5mm male pin wedge
		3mm, 5mm, and 8mm female wedge
Weight: scanner with	2 x tool posts	3kg (6.6lb)
	4 x tool posts	3.5kg (7.7lb)
	6 x tool posts	4kg (8.8lb)

## LYNCS CM - CORROSION MAPPING CONFIGURATION

Dimensions (w x d x h)		742 x 198 x 109mm (29.2 x 7.8 x 4.3in)
Standard bar widths		180mm (7in), 412mm (16.2in), 667mm (26.2in)
Maximum scan width		510mm (20in)
Scanner weight	without water box	2.7kg (6lb)
	with water box	3.5kg (7.7lb)
Circumferential scanning		100mm (4in) to flat plate
Common environmental specifications	Min/Max surface temperature	-30°C (-22°F) / +80°C (176°F)
	Min/Max ambient temperature	-20°C (-4°F) / +50°C (122°F)
	Min/Max storage temperature	-10°C (14°F) / +40°C (104°F)
Water box specifications	Water box mount external dimensions (w x d x h)	100 x 80 x 47mm (3.9 x 3.1 x 1.8in)
	Water box mount internal dimensions (w x d x h)	82 x 42 x 47mm (3.2 x 1.6 x 1.8in)
	Water box external dimensions (w x d x h)	81 x 41 x 57mm (3.2 x 1.6 x 2.2in)
	Water box internal dimensions (w x d x h)	78 x 24 x 25mm (3 x 0.9 x 1in)

## LYNCS AXIAL CONFIGURATION

Dimensions (w x d x h)		436 x 288 x 132mm (17.1 x 11.3 x 5.2in)
External longitudinal diameter range		50mm (2in) - flat
Internal longitudinal diameter range		355mm (14in) - flat
Compatible configurations		LYNCS-WI
Scanner weight:	No toolposts	3.4kg (7.5lb)
	2 x toolposts	3.9kg (8.5lb)
	4 x toolposts	4.6kg (10lb)

## LYNCS CHAIN CONFIGURATION

Diameter range		100 - 812mm (4 - 32in)
Compatible configurations		LYNCS-WI, LYNCS-CM
Minimum width		140mm (5.5in)
1 x Electronic tractor,		
1 x Chain assembly block,		
1 x slimline stabiliser mounted		
Chain weight	12in	1.4kg (3lb)
	32in	2.75kg (6lb)

# LYNCS PACKAGES

LYNCS FULL	LYNCS WI (WELD INSPECTION)	LYNCS CM (CORROSION MAPPING)
Scanner frame with 412mm (16in) rails	Scanner frame with 412mm (16in) rails	Scanner frame with 412mm (16in) rails
2 x tractor units	2 x tractor units	2 x tractor units
4 toolposts with integrated wedge mount	4 toolposts with integrated wedge mount	667mm (26.2in) metric rails with 50mm drilled holes for increment step
500mm (20in) extended rails	500mm (20in) extended rails	676mm (26.6in) imperial rails with 2in drilled holes for increment step
180mm (7in) short rails	180mm (7in) short rails	
AXIAL bolt-on		
<b>Accessories</b>	<b>Accessories</b>	<b>Accessories</b>
Irrigation kit	Irrigation kit	8 x cable/hose guides
Removable central handle	Removable central handle	25 replacement seals
Spare spring set	Spare spring set	180mm (7in) short rails
Spare 3mm wedge mount pins	Spare 3mm wedge mount pins	
8 x cable/hose guides	8 x cable/hose guides	
25 replacement seals	25 replacement seals	
Battery optical guide	Battery optical guide	
667mm (26.2in) metric rails with 50mm drilled holes for increment step	Transit case	Water box mount and water box
676mm (26.6in) imperial rails with 2in drilled holes for increment step		Transit case and portable site case
Water box mount and water box		
Transit case and portable site case		

Note: Umbilical available in 5m (16ft) or 15m (48ft)

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